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COMMUNICATIONS.

IS FRIGHT AN ESSENTIAL PATHOGENIC ELEMENT IN CHOREA?

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It has been contended that sudden fright is the main causing element of chorea. It has even been said that young children under eighteen months never suffer from this disease, because they cannot be frightened; not knowing a danger, it is impossible to make such an impression on their central nervous system as to produce a malady, so generally induced by a sudden fright, as chorea. Before debating the subject, I wish to report the following case:

David T., æt. 14, a strong, physically well-developed boy, was admitted to the State Hospital for Miners, March 25, 1884, for injuries to his left arm and foot. He and his mates were playing marbles near by the railroad. David happened to be the winner, and to get away, so that his playmates would not rob him of his booty, the thought struck him, to jump on a coal train just then passing. He mounted all right, but in jumping off his hand became fastened in the handle of the car, and he was dragged along for a distance of about fifty yards, when his hand suddenly becoming disengaged, he fell with his left arm and foot under the wheels. He scarcely as yet knew what had happened, and he tried to rise and to stand on his feet, when he discovered his left arm hanging loosely by his side. At the same time the left foot gave way under him; he felt a severe pain, a sickening sensation came over him, and he dropped down. His arm was lacerated and pulpified from the wrist to above the middle of the upper arm. He was taken up and carried to his home, where his arm was bandaged, and his foot stitched nicely enough, making it appear as if he had received a simple cut. But high fever and swelling setting in, and the boy complaining of excruciating pains, he being an orphan, and his friends fearing he could not receive the proper treatment there, about five hours after the accident decided to send him to the hospital under my charge.

At once convinced of the impossibility of saving the arm, which for the distance mentioned really was but a crushed mass, in fifteen minutes after the boy's admission I amputated the injured arm in its upper fourth. On account of a rent in the skin on the anterior part of the arm extending well up on the coraco-brachialis muscle, I made two lateral flaps. Every experienced surgeon knows, that in cases of injury flaps cannot always be formed in the exact manner systematic writers on surgery teach us; we have to cut the flaps to suit each individual case. By following my usual principle, to adapt the operation to the case, I am satisfied that I saved the boy fully two inches of bone, with plenty of muscle to cover the bone, and with skin enough to protect the muscle.

Twenty-four hours after the accident his toes on the injured foot turned a livid hue, plainly indicating the serious damage, which the circulation had received. I applied emollient poultices with hot water-baths every three hours. Seventy-two hours afterwards the line of demarcation had formed just above the ankle-joint, and I decided

to remove the now dead foot just below the middle of the leg, employing the circular method. The boy's temperature, which had hitherto remained stationary at 102°, with a slight decline in the mornings, a few hours after the amputation of the leg, fell to 99°.

Although, as mentioned, the boy was strong and of muscular build, I put him from the beginning on a tonic treatment, knowing from experience that the general nutrition of such people in our neighborhood is not favorable to the development of a strong vitality. Besides, I had the first day the suspicion that amputation of the foot would become necessary, and to guard early the boy's system against the shock, which it would have to sustain in the case of two amputations, I resolved to use every effort to keep up the patient's vitality. I put him, therefore, from the commencement, on the bisulphate of quinia and the tincture of the chloride of iron, while his diet consisted of beef tea and milk, alternating at regular intervals. Locally to the stumps I applied a solution of carbolic acid, glycerin and alcohol, which in my hands has met with a better result than the $\frac{1}{1000}$ solution of corrosive sublimate. Whether it is the addition of alcohol or the effect of the carbolic acid, I will not venture to say; but with the local application mentioned I always succeed in obtaining quicker a healthy granulation, and oftener a *prima intentio*, than by any other method.

The arm healed by first intention, the ligature from the brachial artery coming away by the tenth day. The anterior portion of the flap on the leg sloughed away, but by gentle extension, caused with adhesive strips and a one-pound weight, I managed to have both bones entirely covered by a granulating surface.

The patient's temperature was taken by Mr. Jackson, the head nurse, daily at 8 a. m. and at 7:30 p. m., and a careful record kept of the same, from which I glean, that the temperature throughout was normal, with the exception of a few times, when it fell as low as 97⅘°. The pulse varied from 85 to 95.

Thus far the case had progressed very favorably, when on the fourteenth day I noticed peculiar twitchings and other irregular motions and muscular contractions in his right arm and right leg. Within a few days these movements became so violent that he was unable even to drink from a cup. I prescribed five drops of Fowler's solution, to be taken in water three times daily immediately after meals, daily increasing the dose by one drop. The arsenite of potash was continued until the symptoms of physiological poisoning—œdema of the eyelids—showed themselves. Otherwise the patient bore the medicine well; at least no disturbance occurred in the alimentary canal; but the boy became thin and exhausted, his sleep was restless, and he suffered from profuse perspiration. Notwithstanding these symptoms, I continued the treatment, but in diminished doses, for a period of five weeks, when the chorea had totally disappeared. The patient now rapidly improved and gained in flesh so that he was soon afterwards placed into the convalescent ward.

This is the history of the case, to which I will only add, that at the time the boy was suffering from the chorea, my friend, Prof. H. Engel, of Philadelphia, then on a visit to me, also saw him and coincided in my views of the case. We both minutely examined the boy to discover, whether he had been frightened at the time of the injury. He told the following tale:

He had been stealing a ride hundreds of times. Working in the mines, he had to be there at the exact time or lose a portion of his wages. He did not live far from the mine in which he worked, but then he had to walk a distance long enough to prevent him from playing longer than ten minutes. Accidentally a coal train passed, at the time for David to be at the mine, by the place where he generally played, and as the train also ran past the mine, the boy could afford to lose nearly a quarter of an hour more with playing by stealing a ride, the train carrying him so much more rapidly to his post of duty. As he had done so with immunity so many times, he never thought of the possibility of an accident, when he jumped upon the train. The handle of a car consists simply of an iron rod, so bent that a person can easily catch hold of it, and with plenty of room on top to pass a hand through. But towards its lower end this space becomes narrower and narrower, until for a distance of an inch or two the handle touches the wood. By some accident David got his hand into this narrow space, and when he jumped off he found his hand had caught in the handle. But even then he had no idea of danger. He simply made an effort to disengage his hand, not at all from fear of meeting with an accident, but because he did not care to be carried any further, as he had reached his destination.

While thus endeavoring to get his hand out of the handle, the hand suddenly became free, and ere he was aware of it, he was run over. As for the moment he did not feel the slightest pain—

the parts having been crushed—he was even then not frightened; but finding his left arm hanging down, he supported it with his right hand and stood up—probably first stepping on his right foot, as he would otherwise have never been able to raise himself. As soon as he stood upright, he also brought down his left—the injured foot—and it was then he was overcome by pain and a sickening sensation, and fell down. Up to that time he had not known that he was injured, and at no time, from the moment of his jumping on the cars till he again rose on his feet, had he been frightened, and for this simple reason, that he was not at all aware of any danger.

I have so long dwelt upon this point, because I wanted to prove that the fright had by no means caused the chorea. Besides, there are other weighty reasons against it. One is the long interval of time intervening between the appearance of the first symptoms of the nervous disease—two weeks—and the time of the accident. From the works of Keen, Mitchell, and Moorehouse, we glean that it is a common occurrence to see nervous symptoms develop themselves several weeks after a severe injury. We also know the same fact of tetanus, which often makes its appearance in the third and fourth week after an injury. Usually, however, when chorea follows a fright, scarcely twenty-four hours, though sometimes a few days, intervene till the outbreak of the nervous disease; but to my knowledge, there is no case on record where, if the chorea was due to a fright, the first indication of it had appeared two weeks later.

In David's case the disease can neither have primarily been caused by the shock, first, because according to the history, there never was any perceptible shock, and even taken for granted there had been, any disturbance directly produced by a shock, will evince itself sooner, and not wait fully two weeks.

The only probable explanation is, that one or more nerves were irritated by the laceration of the tissues, and that this irritation (inflammation?) traveled up to the brain and was in some way carried or reflected in the usual manner to the opposite side. The length of time intervening speaks in favor of this assumption. It is possible that in traumatic tetanus a similar morbid process takes place, simply varying in degree. In both we have contractions independent of the will. How difficult it is to prove the existence of an ascending neuritis, has been shown by the laborious work of Dubler.*

Until such cases are examined with the same care, we will not arrive at a definite conclusion.

Many cases have been reported where a blow or a wound of a nerve or an irritation of peripheral portions of the nervous system induced chorea.* But in most cases the majority of authors still ascribe the disease to the fright or to the shock accompanying the injury, or they speak vaguely of an irritation of a nerve. It is to be regretted that the time intervening between the outbreak of the disease and the injury is so rarely mentioned.

Hughlings Jackson† believes that embolism of one corpus striatum leads to one-sided chorea. Though there is scarcely a probability that such was the case with David T., his peculiar restlessness and the loss of flesh coincided with the same symptoms, that Dr. Turkwell‡ fully believes in chorea to be due to embolism. To be sure, there was some disturbance in the healing of the stump of the left leg, sufficient to cause embolism; but the most careful ophthalmoscopic examination failed to reveal any disturbance of the circulation at the fundus of the eye. In case of embolism, the symptoms ought to have been more sudden; here the disease gradually developed itself and increased daily in severity, until the action of the arsenite of potash brought about a gradual cessation of the symptoms. The very effect of arsenic disproves the theory of embolism, and the existence of an embolus in one corpus striatum can by no means explain—not, at least, in my opinion—the loss of flesh, though it may produce the restlessness. Perfectly clear cases of apoplexy due to hemorrhage and with the seat of the disease in a corpus striatum, if they recover, do not by any means evince any great emaciation, not more than one would expect in so serious a malady.

While I adhere to the view that in my patient the disease was caused by an ascending neuritis, for which, as recovery took place, I can adduce no proof, my main object in publishing this case, is to induce others to report similar cases. The American nation greatly leans towards a nervous temperament, and, I think, it is due to this fact, that we so often notice peculiar nervous phenomena after injuries developing themselves in patients. But only by carefully recording all such cases can we hope to learn their true character.

State Hospital, Ashland, Pa., August, 1884.

* Ueber Neuritis bei Herpes Zoster. Von A. Dubler, Virchow's Archiv, June 6, 1884, p. 195, et seq.

* Da Costa, Med. Diagnosis, vi. ed., p. 175.

† Hughlings Jackson, London Hospital Reports, vol. ii.

‡ Dr. Turkwell, Brit. For. Med. Chir. Rev., 1867.

SOME OBSERVATIONS ON THE TREATMENT OF COMPOUND FRACTURES OF LONG BONES.*

BY J. H. WOODWARD, M. D.

During the time which you have kindly allotted to me, I propose to discuss a subject with which, I am fully aware, the general practitioner has but little to do. But, notwithstanding the fact that compound fractures are comparatively rare injuries, it may be the lot of some of us to treat one or more of them within a short time. The physician, summoned to such a case, will need all the resources available to enable him to rescue his patient from impending death. Not only is life threatened by every such injury, but, in many instances, the patient must recover, if recover he may, to endure through all his existence the misfortunes incident to the loss of a limb. There are fewer amputations performed now than in former days; not because serious injuries are less frequently sustained, but because limbs that were then sacrificed may now be saved. The treatment of this class of cases, as every one knows, has been modified within the past decade.

It has been my good fortune to witness the results of both the old and the new. It has been my good fortune to observe the effects of a variety of kinds of treatment; and, sad as it may have seemed from other points of view, it has been fortunate for my own instruction that I have been able to observe the fatal issue of a number of cases managed according to methods popular with many surgeons of eminence. On account of these considerations, then, I fain would justify myself to you for drawing your attention to the following observations:

With few exceptions, the subject chosen has been left for discussion to men who have grown gray in the profession.

Much that there is to be read in relation to it has emanated from the reflections of the older surgeons connected with one or more of the great Metropolitan hospitals. But, speaking from my own experience, which I am sure accords with that of a large number of the younger men, I must record it as my conviction, that many of the directions insisted upon by them are not, and never can be, satisfactorily or safely followed in private work, amid the surroundings which are generally present. It is all very well to order a house-surgeon in a well-equipped hospital to see, for example, that discharges from a wound are cleared away three times during the day and as often during the night. It is all very well to impose upon him directions for treatment that will keep two or more trained assistants busy night and day. In hospitals there are many to assist and many to watch every change in the case. But in private practice, even in the homes of the rich, how different are the surroundings! and how futile the attempt to carry out there all the necessary details of those methods! The visiting surgeon to the hospital does not realize how great is the amount of work performed in the execution of his orders. It falls to the lot of the younger men to know all the drudgery of the institution; and, with certain restrictions, it becomes proper for them to lay bare their thoughts.

So much by way of preface, gentlemen, and now, with your permission, we will enter upon the subject before us.

Clinically, we may roughly classify compound fractures under three divisions, namely:

1. Cases in which primary amputation is necessary.

2. Cases in which amputation may be delayed until conservative treatment has been faithfully tried.

3. Cases in which the injured member may be saved—the question of amputation arising, if ever, only when unavoidable poisoning of the blood has begun.

1. Cases requiring primary amputation.

Oftentimes it is not difficult to decide whether the patient must submit to amputation. Those injuries which fracture the bones, lacerate the soft parts, rupture arteries and nerves, and leave the extremity attached to the body by mangled tissues, present no questions respecting the nature of the treatment to be adopted. The sole deliberation called for by them is upon the selection of the proper time for the primary operation. It is the general opinion of surgeons that amputation should not be performed during the state of shock. In the vast majority of cases, the wisdom of that rule nobody will attempt to gainsay. But there is a class of cases in which the presence of the injured member prolongs and deepens the shock. There are other cases in which troublesome hemorrhages from arteries too small to be found in the mangled tissue, renders it imperative to apply the tourniquet. In the latter set of cases, if we were to wait always until the patient had rallied, the tourniquet must remain in position for hours. In both sets of cases, we should not wait more than two or three hours. During that time stimulate the patient by the hypodermic method; and, hav

* Read before the Rutland County (Vt.) Medical and Surgical Society.

ing delayed as long as the condition of the limb will permit, operate as rapidly as possible. When the hemorrhage is not serious, even though the main arterial trunks are lacerated, the tourniquet need not be used. Of course, the lacerated vessels should be ligated. A wet antiseptic dressing may be made to compress the oozing surface, and, if necessary, the surgeon may wait twenty-four hours before operating.

2. Cases in which amputation may be delayed until conservative treatment has been tried.

The second class which we have made, includes those cases of compound fracture which test more thoroughly the skill and patience of the surgeon. Every detail in the history, every thing about the fracture that can be ascertained by the most careful examination, must be studied attentively and judged upon its merits. The age, general health and habits of the patient must be given their share in the evidence pro or con. Then the surgeon may decide whether conservative treatment should be attempted; and that decision must be made in the knowledge of the dangers that must be averted, and with sufficient confidence in the methods to be employed.

The nature of the causes of these fractures determines a wide difference in the cases. In the majority of instances, a compound fracture produced by direct violence is much more serious than one produced by indirect violence. When direct violence is the cause, the skin, muscles, fascia, blood-vessels, nerves, periosteum, and bones are contused to a greater or less degree, and that always affects the process of repair. Sometimes the fracture is comminuted. Sometimes the wound in the integument is small, but the tissues beneath the skin are so badly contused and, perhaps, lacerated by the sharp fragments, that a case which, to an inexperienced eye, may appear to be an ordinary one, is, in reality, one of the gravest kind. This contusion should be looked for, and if found, the extent of it should be carefully estimated. With it is frequently associated undermining of the integument, making pockets beneath the skin, sometimes in the muscles, and sometimes in the intermuscular spaces. It is as important to explore the wound for them, as it is to examine the fractured bone itself.

Serious hemorrhage in cases of compound fracture is common enough; but, in the majority of cases, the hemorrhage should not alarm the physician. The bone bleeds more or less and there is generally venous hemorrhage that may make some "show" of being serious, but it will cease without any interference in a little while, after the deformity is reduced. Even wounds of large veins need not determine you to amputate.

The following quotation from Billroth's Surgical Pathology (p. 212) will give you his opinion of the importance of injuries to nerves and blood-vessels in this class of fractures:

"Large nerve trunks are rarely torn in fractures, and when they are, it does not seem to have much effect on the cure; and experiments on animals, as well as observations on man, show that bones may unite normally in paralyzed limbs. Injury of large venous trunks, as of the femoral vein, causes hemorrhage, which may be readily checked by a compressing bandage, it is true, but may prove dangerous when the blood effused between the muscles and under the skin begins to decompose.

Rupture of the arterial trunk of a limb occasionally leads at once to considerable arterial hemorrhages; but this is not a necessary sequence; for, as previously shown, a thrombus quickly forms in the crushed artery, so that we do not always have excessive hemorrhage. But, if from the nature of the hemorrhage we recognize the rupture of an artery, according to principles already laid down, we should either attempt to ligate the artery at the wound, or else at the point of election. Rupture of the femoral artery with fracture of the femur is found by experience to be followed by gangrene, and is an imperative indication for amputation, while in a corresponding injury of the arm recovery may result or gangrene may follow. In fractures of the forearm or leg, even if one or both arteries be ruptured, recovery may take place.

Furthermore, there are on record three cases of simple fracture, in which diffuse aneurism formed, and in which the femoral artery was ligated. The patients recovered perfectly. Petit ligated the anterior tibial artery in a similar case, and the patient recovered. These facts are positive evidence that serious injuries to blood-vessels do not always afford a sufficient justification for the removal of a limb. [See Ashhurst's Encyclopædia of Surgery, vol. iii., pp. 162, 163.]

Laceration and contusion of the soft parts may be great enough to indicate imperatively a primary operation. The periosteum may be stripped from the fragments to such an extent, or it may be so seriously contused that it would be futile to delay amputation beyond the state of shock. To save a limb that will heal in such a condition that it will not be a serviceable member is not good surgery. But we should hesitate to condemn a limb on such

ground; for it is far better to fail in attempting to save a limb by conservative surgery than to amputate unnecessarily. These considerations must be borne in mind and influence our decision respecting the treatment of these cases. Experience with the healing of wounds will tell pretty nearly what result may be expected. The statistics collated years ago are not reliable now. In order to see the merits of a bad compound fracture and decide how great is the hope of a satisfactory termination, it is necessary that the surgeon should know what may be accomplished by the modern methods of dealing with wounds. Nature will accomplish more, with a little judicious assistance, than we are accustomed to think.

And I am confident that in many doubtful cases the surgeon will not regret having postponed an amputation to try faithfully the conservative antiseptic treatment.

Suppose a compound fracture of the tibia; the fracture in the tibia comminuted moderately, the upper and lower portions of the shaft separated by a long oblique line of fracture, the one overriding the other; the soft parts of the anterior and outer side of the leg, presenting a large contused wound extending into the muscles; the fibula fractured, but not compounded; both arteries intact. Your imagination can hardly lead you astray as you attempt to form a picture of such an unpromising case as that. Many surgeons would have amputated the limb at once. It was the most serious compound fracture of the leg that I have ever seen managed conservatively. Dr. F. Lange, however, saved the limb by means similar to those I shall describe later on, and taught many of us a startling lesson in the treatment of such cases.

[And here pardon me a digression. There is no surgeon in New York who has done so much for the recent advance in the surgical treatment of a great variety of cases as Dr. F. Lange. The older surgeons, as well as the younger, are indebted to him for more than will ever be acknowledged. He needs no eulogist, however. It was he who taught us in Bellevue Hospital all that we know that is most reliable in the aseptic management of all sorts of wounds. From Bellevue that knowledge spread to other hospitals, until now the journals contain articles showing how well or how imperfectly the lesson has been learned elsewhere. Other men have claimed the honor of bringing about this great change, but to Dr. Lange is due all the glory of initiating an advance so great and so brilliant.]

Having determined to attempt to save the limb, what method of management should you select? I do not know what the opinion of the profession in this country may be, in regard to the causation of the various accidents which befall many wounds. Whether you believe in the power of germs (bacteria, micrococci, etc.,) to poison, by their activity, the wound or the patient's blood, I do not know. My own belief in relation to this subject is clear enough. And daily observations, made through a considerable period, have uniformly strengthened my conviction, that the theoretical conclusions and classical results of the treatment based upon them, are scientifically associated. In the majority of instances, the bad behavior of wounds is due to the action of micro-organisms. Septicæmia, pyæmia, and allied affections are always the consequence of their activity. And suppuration, which is too often a serious burden for the patient, also *generally* depends upon those organisms.

You may dissent from this opinion, but I do not believe that any one will attempt to maintain that the treatment based upon the germ theory is not followed, when conscientiously and intelligently carried out, by results more brilliant and more uniformly excellent than any other sort of treatment can boast of. Whether by virtue of the contagion of fashion or the force of conviction, surgeons seldom dress a wound now-a-days without employing some antiseptic or other.

The various methods set up against the aseptic method are all antiseptic more or less. And in some notable instances the prominence accorded to the antiseptic furnishes an explanation of the success attained.

Prof. T. M. Markoe published an article in the *American Journal of Medical Sciences*, for April, 1880, entitled "Thorough Drainage in Treatment of Wounds." He employed that method in a number of compound fractures, and the patients all recovered very satisfactorily indeed. But they did well *because* the cases were managed antiseptically. His treatment is an efficient antiseptic treatment. In private practice, however, and in the country especially, it could not be attempted without exposing the patient's life unnecessarily. Methods which permit that healthy suppuration which produces "laudable pus," are objectionable, because they permit that drain upon the patient's vitality to take place. Suppuration that was formerly regarded as laudable may now be regarded as at least unnecessary.

In the *Journal* of the American Medical Association for June 21, 1884, you will find an article on compound fractures. The author cites 144 cases

but his, like statistics in general, are very deficient in many important respects. I have seen the method he advocates applied in his own wards. It is an antiseptic method, but it is not aseptic. And it is a just criticism to offer the fact that his patients uniformly manufacture more pus than do those of any other surgeon who visits Bellevue Hospital. Further objections might be urged here, but since they are mentioned incidentally at another part of this paper, it is best to postpone all discussion of them until a more convenient time.

The practice of sealing the wound in compound fractures with cotton and collodion, or with cotton saturated with blood and dried, is familiar to every one, and is, I believe, quite popular.

In the Roosevelt Hospital, New York city, that practice has been tried more extensively than in any other institution of the sort that I am acquainted with; and, I am sorry to say, it has been attended with success, even in some very unpromising cases. Such success is misleading. I remember very distinctly a compound fracture which was sent to Bellevue one night from Roosevelt Hospital. The patient was delirious, with a temperature of 102°. He was a German, who had been accustomed to drink a pint of beer daily. For that reason his delirium was said to be due to acute alcoholism. I do not question the diagnosis. The following evening the apparently elaborate dressing was changed, and it was discovered that the wound had been sealed. The position of the fragments was exceedingly bad, chiefly because it had not been possible to keep the patient quiet. He had been delirious two days only, and had been violent a much shorter time. It did not seem possible to any of us that the movement of the fragments could account for the condition of the limb, which was so bad that it seemed inevitable that the greater part of the integument on the anterior surface of the leg must slough away. The wound through the skin was a small one, and that fact may have deceived the surgeon. On the third day the house-surgeon operated upon the case in the presence of two surgeons well-known in New York city. Although the general and local condition of the patient had improved since his admission to Bellevue, the limb at this time looked so unpromising that surgeons of large experience remarked that, a few years ago, amputation would have been performed without a question. The house-surgeon enlarged the wound, sutured the bones with silver wire, and finally, in order to relieve tension, he made two long incisions on either side of the leg from its lower third to the popliteal space. The most strict antiseptic precautions were observed, and a closed antiseptic dressing applied. The progress of the case after this was very satisfactory indeed. The temperature-range was favorable all the time, the patient's local and general condition improved rapidly and steadily, and now, more than six weeks after the operation, he is out of danger and his fracture is quite firmly united.

The sealing process in this instance caused retention of blood and serum. And no splint, by itself, could hold the fragments in proper position even under ether. It was the general opinion of all who saw the case, that the bad behavior of the fracture was chiefly owing to the treatment adopted at the outset. The patient's marked improvement in every particular, which ensued directly after the case was operated upon, is confirmatory evidence that our judgment was sound.

I remember another compound fracture of the tibia, due to direct violence, presenting a small wound communicating with the fracture. It was treated by sealing. The temperature range in this case was never satisfactory, and after one or two weeks the fever rose so high that the sealing was removed.

Thorough antiseptic precautions were taken to disinfect the wound, which was then dressed antiseptically, but was neither enlarged nor drained. The patient in a few days became apathetic, then delirious, and finally died, after a short illness, of septicæmia.

Very few cases of compound fracture are suitable for the practice of sealing. It is unjustifiable to seal any wound produced by direct violence. It is unjustifiable because, unless the wound be enlarged and free drainage of every part of it provided for, one is apt not to thoroughly disinfect a certain number of cases. In a wound rendered aseptic, sloughing may take place without danger of blood-poisoning. But, in contused wounds that are not aseptic, there is suppuration, and, too often, decomposition of the discharges. This sealing process is unsuited to all cases in which the bones are comminuted, and all in which there is much hemorrhage. Since the method favors retention of blood and serum, which, by their presence, increase the tension and consequently the danger of inflammation, and since there are other methods which protect the patient more thoroughly against the consequences of fermentation of the wound, it seems to me that the practice of sealing compound fractures should be universally condemned, and discarded altogether.

In all cases some method of treatment, consist-

ing in the use of antiseptics, should be relied upon. Perhaps it is true that a certain number of wounds are not infected, and do not require to be *dis*infected. But I have never read of, nor have I ever been told, the means by which any one may select them. The greater the care with which you make the primary disinfection, and the more scrupulous your attention to all the details of the aseptic-antiseptic treatment, the more satisfactory to every one will be your results.

The treatment that I am about to describe affords, when properly carried out, nearly perfect protection against septicæmia, pyæmia, erysipelas, and every other form of blood-poisoning. It either prevents all suppuration in the wound, or reduces it to insignificant proportions. It prevents inflammation of all sorts, and it is most comfortable to the patient and surgeon. The former is not depressed and exhausted by a febrile movement, nor is he irritated or frightened by frequent manipulations about the wound. The surgeon must be watchful, but he may be pretty confident that everything will terminate to his satisfaction. Now and then a case does badly; and, as a rule, the surgeon may blame himself for it.

Generally speaking, it is altogether best to anæsthetize the patient before attempting to dress one of these serious cases. The same rules for administering ether hold good for these patients as for others. Of course, stimulate the patient until the shock has passed away, and then the anæsthetic may be administered without incurring any special risk.

Every instrument, every sponge, in short, everything that may touch the wound, should be thoroughly purified of all septic matter. And, excepting when in use, they should be kept immersed in $\frac{1}{30}$ carbolic solution. The limb should be placed on a rubber blanket arranged so that the water will run into a bucket and over the blanket. Just prior to beginning the thorough examination of the fracture, you should spread towels, recently wet in $\frac{1}{1000}$ solution of corrosive sublimate. The operator and his first assistant should thoroughly cleanse their hands with a nail brush, and disinfect them both in the beginning and after handling any unclean thing (as bedclothing, etc.) A basin containg $\frac{1}{40}$ carbolic solution should be within easy reach for such purposes.

(*To be continued.*)

—Fraulein Giuseppina Cattani has recently passed her medical examination at the University of Bologna *cum laude*. Miss Josephine is a pioneer among Italian medical women.

Hospital Reports.

NEW YORK HOSPITAL.

CLINIC OF PROF. WILLIAM H. DRAPER.

Reported by W. H. Seelye, A. M., M. D.

Cerebro-spinal Meningitis.

Patient is a boy 15 years of age, a German, single, and a glass-finisher by trade. Was admitted January 9. Both parents are subject to attacks of rheumatism, but they have five other children, none of whom have ever had it. Patient occasionally uses beer and stronger drinks, but not to excess. Has never been exposed to gonorrhœal or syphilitic infection. Three years ago he received a hurt upon the left knee, but it did not trouble him much, and he thought it of little consequence. Since then he has enjoyed good health until three months ago, when he had an attack of rheumatism in the ankle-joint, which became swollen and painful. In May last, however, he thinks he had fever and ague, and he says that this returned at the time of his rheumatic attack three months ago. Every day for three weeks he had a chill, followed by fever and sweating, which caused him to become weak and greatly prostrated. After this he got better and went along well until last Friday, when he was seized with an excessive pain in the front part of his head; and soon after he began to vomit, and he continued vomiting at frequent intervals all that night. The vomiting was markedly projectile in character. The bowels have not moved since. He has had a moderate cough, but a constant and intolerable headache has been the symptom of most importance, and he says that it has driven him almost crazy. About a half day after these symptoms began, he noticed a stiffness about the muscles in the back of the neck, which has steadily increased until he can now not move his head without great pain. He sometimes sees things double. Two days before his admission his head was so much drawn back in a state of opisthotonos that he says he could not see his own toes. On admission his pulse was 112, respiration 32, and temperature 104.2°. His prominent symptoms since he came in have been nausea, vomiting, groaning with the intensity of the frontal pain and a cough. Besides there was found a mitral regurgitant murmur. The vomited matter was greenish, and contained mucous and biliary ingredients. At times his mind wanders, and he has a mild delirium. A good deal of the time he lies in a stupor, but from this he can easily be aroused. He has a dry cough and a dry and sore mouth. The muscles of the neck are so rigid that he cannot turn the head to the left, nor bend it laterally without great pain. There has been a slight amount of external strabismus, which is constantly increasing. He is most delirious at night. The conjunctiva upon the left side is markedly congested. The knee, elbow, hip, and ankle joints have become stiff to some extent. There are some dry rales and other rhonchi heard upon auscultating over the lungs. The urine is acid, with a specific gravity of 1029, and contains urates, but no albumen.

Gentlemen, there is nothing of special import-

ance in this history until we come to the time when he suffered from an attack of rheumatism in the ankle-joints, about three months ago. From that, and from the daily attacks of fever, he suffered for three weeks. Then there was an interval of fair weather for a little time. But upon Friday of last week he was seized with the onset of the disease from which he is now suffering, in the shape of a severe frontal cephalalgia, nausea, vomiting, and stiffness of the muscles at the back of the neck; and at one time opisthotonos was so extreme that, as he expresses it, he could not see his toes. He was brought in here upon the ninth of this month with a temperature of 104.2°, a respiration of 32, and a pulse of 112. When he came in he was suffering, as he had been from the beginning, from extreme headache, nausea, and vomiting, and from tenderness in the back of the neck, and from extreme pain whenever any effort was made to flex the head upon the trunk or to turn it towards one side. He is delirious at times and soporose at others. But the delirium is not active, and he can almost always be easily recalled to consciousness by speaking to him. It is not therefore, a violent delirium. There is still another special symptom here, and that is a disposition to grimace, which you have probably already noticed while standing here at his bedside. When I disturb him a little by touching him upon the forehead you observe that there is not merely an expression of pain, but a knitting of the brows. And this, with an occasional twitching of the lips and a movement of the nostrils, has been noticed as a striking objective sign ever since he came in, and it is a common symptom in this disease. Also note the character of the temperature, pulse, and respirations since he came in. There has been about all these vital signs a marked irregularity. He came in with a temperature as high as 104.2°, but this was partly due to the agitation produced by his removal: it fell the day after to 102.3°, and has not risen since above 103.6°. The variations in the temperature do not follow any regular course such as is observed in the daily variations in the essential fevers. But there is great irregularity occurring two or three times in the twenty-four hours. For example, to day at 6 a. m. the temperature was 101.2°, and at 9 a. m. 101.6°, and at 1 p. m. 101.8°; while yesterday at one time it was 102.6°, and in the evening 101.3°. It is sometimes higher in the morning, and not so high in the evening, and again it is sometimes lower in the morning and high in the evening, and there is no regularity about it. And the same thing is true of respirations. At the time of his admission on the ninth, they were 32 per minute, and later 34, and on the tenth they were 16, and yesterday 32, and to-day they are 28. The pulse also varies a great deal. On his admission it was 112, then 100 the next day, and 104 the next, and at noon to-day 100. And I have no doubt that these same variations in the pulse are observed even in the quarter minutes. So the variation does not seem so marked in the record as it really is. Now this irregularity in the vital signs is one of the characteristic features of this disease; for his disease is a meningitis which involves both the cerebral and the spinal meninges, and it involves a locality in which the irritation affects the centres which control the respiration, temperature, and pulse. Another very interesting and characteristic feature which we have here, is the arthritic lesion. Whether the articular disease of three months ago was of nervous origin, and one of the prodromata resulting in this malady, or not, I am not prepared to say. But since he came in, he has had a rheumatic affection of the knee-joint, and it is not at all improbable that he will have other joints affected in the same way before he gets through. These articular affections occurring in the course of cerebro-spinal meningitis constitute one of the most interesting features of the disease, and they are apparently so far a demonstration of the theory of the spinal origin of articular lesions. You all doubtless know that this is a point about which there is now considerable discussion going on, as to whether articular rheumatism is a disease having a spinal origin. There are some things which seem to point to some such association. For example, in Potts' disease it is commonly noticed that the joints below the seat of the spinal lesion are the ones to suffer, and in locomotor ataxia this same peculiarity is noticed, and in acute diseases of the membranes of the brain and spinal cord, you not infrequently find in some epidemics the occurrence of this articular complication.

There is another sign which is common in this affection, but which he does not present, and that is a cutaneous lesion. This disease has also been called spotted fever, from the fact that when it has occurred in epidemic form an eruption more or less extensive has commonly accompanied it. This eruption varies a good deal in its characteristics. The most striking peculiarity is its petechial character, and the spots are sometimes discolored by a cutaneous hemorrhage, forming blood-stains, and it sometimes simulates the maculated eruption of typhus fever. Or the eruption may be in the form of broad patches of ecchymosis; or sometimes there may be an erythematous rash simulating that of scarlet fever or measles. So we have really, when we come to study the cutaneous lesion of meningitis on a large scale, a polymorphous eruption, so to speak. But there is always more or less tendency for it to assume the hemorrhagic form.

Now as there is considerable variation in the constancy of the articular lesions, so there is also in the cutaneous lesions, and these objective signs are not invariably present. You may see many cases in which there are no cutaneous or articular symptoms, or either may be present and the other absent. It is probable that these variations are determined by the location of the central inflammatory lesion. There is probably some nerve-centre the irritation of which produces cutaneous disturbances just as there are centres which when irritated provoke articular lesions.

The special interest of this case is in the fact that it illustrates the important characteristics of this malady, in the cephalic pain, and the stiffness of the muscles in the back of the neck, and in the moderate degree of delirium and the soporose condition, and the irregularity of the pulse, respiration, and temperature, and in the tendency to involuntary twitchings of the muscles of the face. He lies, as you see, with his head a little inclined to the right, and he resists

any attempt which is made to turn his head to the left, and pressing upon the back of the neck or making any effort to flex the head upon the chest causes him severe pain.

There is another symptom in the history of this case which I wish you to note, and that is the nausea and vomiting. This is a frequent, but not invariable accompaniment of this disease. But it has been a troublesome complication here, and has interfered somewhat with the treatment, so it has been necessary to use the hypodermic method altogether for the administration of medicine, and the rectum for the food and nourishment.

The treatment adopted in this case is the one which for the past two or three years we have been accustomed to use here, and which has given some degree of satisfaction; but I must confess that from its frequent failures to produce any benefit there is some reason to doubt whether its success in those cases in which it has seemed to succeed is a genuine illustration of its therapeutical effects. Ergot, you know, is supposed to have some influence in controlling the circulation in the cerebro-spinal cavities, and in accordance with that theory it has been administered in such cases as this. But I am not prepared to speak as regards its utility. It is one of those remedies, the value of which is at present under discussion. It certainly has some extraordinary effects upon certain nervous diseases, where its utility is explained by its effect upon the circulation. It may really act by controlling the circulation, or it may act in some other way. But that it does frequently act favorably in cerebro-spinal affections there is no question. I only have some doubt as to its utility in this disease, because where it has been tried its effects may have been modified by other drugs, which have usually been administered with it. Again, there is no question but that there is in all acute diseases a tendency to recovery, which is more or less successful independently of any remedies whatever. So we should receive the evidence of the utility of any medicine in acute diseases with some caution. In these cases "post hocs" are not always "propter hocs." I would treat this disease with ergot now, though, perhaps, in a year from now I would not; for new remedies are constantly being tried, and something promising greater success may be introduced within a year which will entirely supersede this one. This diversity of remedies for a single disease has been especially noticeable in the history of the treatment of rheumatism.

Fashion sometimes favors one drug and sometimes another; and the success of any treatment, so far as we are able to judge, should not be accepted without considerable doubt. For we can not say certainly that the result is due to the treatment.

Apoplexy.

This, gentleman, is the case you saw last week (see page 201) of the man who had aphasia in connection with hemiplegia. When you were here he was in a state of semi-consciousness, and we were not able to arouse him sufficiently to make him speak, though there was not a condition of sound coma. I told you that probably by the time you came again he would have come out of this state of semi-unconsciousness, and we should then know whether he would have what is a common complication of right hemiplegia, namely, aphasia. You now see that he has aphasia, and he only mutters unintelligible gibberish to all questions which are asked him. He understands perfectly what you say, and when asked to raise the right arm he lifts the paralyzed arm with the sound one. This is a very characteristic gesture of hemiplegia.

He has a slight degree of fever: but this is not an uncommon sequence of apoplectic attacks, and it is noticed as a rule that on the third or fourth day after a cerebral hemorrhage a mild degree of fever supervenes, which has been ascribed to the inflammatory irritation which takes place around the clot. This man's temperature was 102.3° yesterday afternoon, and this morning it was normal, and since then it has been rising up to the present time.

He is receiving no treatment other than attention being paid to the food, and to the emptying of the bowels and bladder.

You remember that I told you that he had the triad of cardiac hypertrophy, granular kidneys, and sclerosed arteries, as is common.

General Dropsy.

The next patient is 19 years of age, born in the United States, a student, and single, and was admitted to the hospital last evening. His mother, when living, had occasional attacks of rheumatism, and his father is now alive and well. There is no history of cardiac or pulmonary disease, or of dropsy, in his family. The patient has never had malarial fever, or rheumatism, or gonorrhœa, or syphilis. Five years ago he had diphtheria, and this was followed by pain and swelling of the knee and hip joints, and the swelling spread down the whole thigh. He complained chiefly of the pain in his right hip joint. He never had any fall or other injury to account for it. For the past five years the pain in the right hip has been severe and constant in character, and has been worse at night. He has been treated for this by electricity, and by local applications of every variety. One year ago suppuration began to take place in the hip-joint, and an abscess formed which finally opened upon the upper part of the outside of the right thigh. Pus has continued to be discharged ever since, and there are now two or three discharging sinuses at this point. He says no pieces of bone have ever come away with the discharges. The head of the femur used to sometimes slip upwards out of its socket, but this dislocation could easily be reduced. The right leg has gradually become atrophied until it is now only half the size of the left. He has been subject to dyspepsia, and would often have attacks of diarrhœa after any slight irregularities of diet. He has not been troubled with piles. For the past three weeks he has been costive, but for the last three or four days he has had a diarrhœa from taking some pills. Three weeks ago both feet and legs became swollen, and he became troubled with a cough and shortness of breath, and a feeling of oppression in the chest, and with pain in the lumbar region, and with attacks of vertigo. He noticed upon rising in the morning that his face had a puffy appearance, and this was

especially marked just under the eyes. He had no œdema anywhere before three weeks ago. But now, besides the general anasarca, his scrotum and penis are infiltrated enormously. He can move his right leg better than he could a year ago. On his admission his temperature was 98.7°. His urine was of an amber color, and acid reaction, and had a specific gravity of 1.018, and was one-tenth albumen, and contained fatty hyaline and epithelial casts of various sizes.

Gentlemen, the interest of this case begins with the attack of diphtheria, which he says he had five years ago. But he is not very clear as to the nature of this attack, and so I asked him if it might not have been scarlet fever, because this malady which came on soon after is more commonly a sequel of scarlet fever than of diphtheria. I have never seen a case of scrofulous bone-disease coming on after an attack of diphtheria, but I do not say that this may not occur. He says that soon after the diphtheria ended he had pains of a rheumatic character in the hip and knee of the right side. But this was really not so much rheumatism as a morbus coxalgia, as it is called. And pain referred to the knee-joint is one of the common symptoms of an irritation in the hip-joint. There has always been some embarrassment of movement in this hip-joint ever since the trouble began, and there has been pain extending from the hip down to the knee. He says that he was obliged to walk on crutches until a year ago, and since then he has used a cane. This disease finally terminated in the production of an abscess a little below Poupart's ligament upon the anterior and outer portion of the thigh, and the sinuses leading from this are still discharging. The disease in the hip-joint we are not however concerned with, except in so far as it relates to the causes of the disease from which he is now a sufferer. He comes into the hospital for relief from a general dropsy; and the characteristic features of a general dropsy are very well illustrated here. The lower extremities are very markedly swollen, and the scrotum is greatly distended with fluid, and the penis is much enlarged and distorted, and has the characteristic corkscrew appearance which is often seen as the result of œdema, and there is general anasarca of the whole body to a marked degree. There is considerable fluid in both pleural cavities, but I do not get any satisfactory evidence of fluctuation in the abdominal cavity, though there may possibly be a certain amount of fluid there. Now we are to determine what is the cause of this general dropsy.

Upon physical examination, I find no alteration in the heart-sounds, and no evidence of any considerable cardiac hypertrophy. The apex beats inside of the nipple-line and in the fifth intercostal space, and the area of præcordial dullness is not increased, and the valves are not insufficient. So we can not attribute this general dropsy to any disturbance at the centre of the circulation. I find considerable splenic enlargement, but no particular change in the area of hepatic dullness, and there is no enlargement of the abdominal veins, and nothing, therefore, indicating any obstruction in the portal circulation. Now, therefore, having eliminated the cardiac and hepatic causes of dropsy, we yet have left the renal explanation. The urine has already been examined and has been found albuminous, and to contain an abundance of casts of all varieties, and the amount passed has been small. From these facts I think it is fair to infer that he is the subject of a parenchymatous nephritis and probably, also, of a certain kind of degenerative change which is not inapt to occur in connection with chronic suppurative conditions. The lardaceous kidney is the regular result of protracted suppuration. And patients with hip-joint disease and Potts' disease, and who have abscesses which continue to discharge for a long period of time, and especially abscesses which are due to necrosed bone, are not inapt to suffer from this amyloid form of degeneration. In the dropsy which occurs in connection with this form of kidney disease you will always notice a more or less anæmic condition of the patient. And so you see that this man has a pale skin and waxy lips, and I suspect that this dropsy comes from the anæmic and watery condition of the blood, which prevents those interchanges between the tissues and the blood, which depend for their activity upon the healthy state of the blood and the tissues.

The treatment of such a case depends upon the carrying out of two indications, namely, to improve the quality of the blood, and to increase the eliminative power of the kidneys and the supplementary functions of the skin and bowels. You observe that the doctor has bandaged these limbs. And it is probable that from this simple measure, in connection with rest in the recumbent posture, there would be a considerable diminution in the dropsy. But this elimination will be increased by the administration of diuretics, and by paying attention to the diet. And this is a better plan than to employ extreme diaphoretic measures, and it is also best at present not to exhaust him by excessive purgation. The occasional administration of diuretics and laxatives, and the employment of pressure and of good food and ferruginous tonics to improve the quality of the blood, is the best plan of treatment. And with this combined treatment of pressure, food, medicine, and tonics, you will probably see an improvement in a short time.

His present condition is a perilous one, because it is liable to give rise to dropsical effusions in locations where they may do mischief. It is quite safe for a fluid effusion to collect beneath the skin or within the peritoneal cavity, but it is not so safe to have it fill the pleural or pericardial cavities, where it may interfere with the action of the lungs and heart. And when you come to the subarachnoidean space, you see it needs but a slight amount of œdema to cause a great deal of mischief. So it is important first of all to improve the general condition of the patient by nutritious food and iron. And this is better than to exhaust him by violent purgation and diaphoresis, which may disturb the stomach and so defeat the principal object of treatment, which is to improve the general nutrition.

—The authorities of Vienna have sent a commission composed of two physicians and three sanitarians to Toulon and Marseilles, for the purpose of investigating the cholera epidemic.

Medical Societies.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Thursday evening, February 14, 1884. The President, Dr. Tyson, in the chair.

Aneurism of the Left Ventricle.

Presented by Dr. W. E. Hughes.

To the kindness of Dr. M. B. Musser I owe the clinical history of this case, and the privilege of presenting the specimen to the society.

Mr. P., æt. 58 years, healthy, with the exception of slight pain in the region of the heart on vigorous exercise, was attacked September 20 with left hemiplegia. Motion was completely lost, sensation somewhat impaired, but by no means lost. The attack was rather sudden, and was preceded for some days by slight dizziness. There was no loss of consciousness. After treatment lasting over more than a month, he is so far recovered as to be able to walk with the assistance of a cane, when he was seized one night, while in bed, with a frightful attack of angina pectoris. During the next two or three days the attack was repeated several times, and at the end of that time there was a very plain double pericardial friction sound heard over the whole cardiac area. From this time on the anginal attacks were neither so frequent nor so violent as before. He fell back dead, November 15, while sitting up in bed to take a glass of water. Before the pericarditis had developed, the heart had been carefully examined, with the result of finding no murmur. The area of cardiac dullness was enlarged, and the heart's impulse weak and diffuse. The pulse was weak, ranging from 75 to 80 in the minute, and very little accelerated during even the severest angina. The urine contained a small amount of albumen. No microscopic examination was made. There was at no time any œdema. Autopsy 36 hours after death. Body very fat. Rigor mortis moderately well developed. Abdominal and thoracic organs decomposing rapidly. Brain is larger than the average, very heavy, and much convoluted. All its larger arteries are atheromatous, in places converted into rigid tubes, but nowhere is there any interruption of their lumen. No lesion of the brain substance. Some opacity of the pia mater, more marked over the right hemisphere anteriorly. In the meshes of the pia mater a large amount of straw-colored serum, most abundant about the motor areas on the right, and here the serum is tinged with blood, though there is no true clot. Very little serum in the ventricles. Lungs are congested; no lesion of their substance. About a quart of serum in the left pleural cavity; less fluid in the right, and firm adhesions over its upper half. Universal pericarditis. Cavity of the pericardium is almost obliterated by easily torn adhesions; where it is not obliterated, there is a small effusion of flaky, sanguinolent serum, and the pericardium is ribbed by a deposit of lymph. Heart is large, left auricle dilated, ventricle enormously dilated and hypertrophied, its wall one and a half inches thick; right side very little changed. In the left ventricle, involving the interventricular septum and the wall about the apex, is a saccular dilatation capable of holding at least two fluid ounces, developed by a giving way of the heart wall. This cavity was filled by a firm old clot, containing a cavity as large as a filbert, filled with grumous pus. The endocardium in the aneurism had been totally destroyed, and the clot was in places firmly adherent to the exposed and thinned muscular tissue. In the anterior wall the tissues had completely given way over a very small area, and the rupture was filled by the clot, which projected slightly into the pericardial sac. A similar condition existed in the septum, the clot here projecting one-half inch into the right ventricle. Owing to the clot filling these ruptures, there was no communication between the cavity of the left ventricle and that of the right ventricle, or of the pericardium. Heart muscle is fatty. Aorta is slightly atheromatous, and its valves rather rigid, though competent. Other valves healthy. Coronary arteries not atheromatous. Liver enlarged, congested, slightly cirrhotic. Kidneys enlarged, congested, cortical substance increased in volume, small spots of fatty degeneration, capsule strips off easily.

Dr. Bruen thought it was of great interest to note that the location of the aneurism was in the septum towards the apex. This was an unusual site, because when due to ulcerative endocarditis, as was probably the case here, the aneurism is usually situated at the base of the heart, about the attachment of the aortic valves. He had seen a case three or four years ago of aneurism of the heart, the result of ulcerative endocarditis, which was situated at the apex, but it extended towards the left, and did not affect the septum. In this case the pericardial cavity was completely obliterated at the site of the aneurism, where the pericardium formed the aneurismal wall. I tapped at this joint for a pleural collection, but only withdrew of blood when I desisted. Instead of doing harm the tapping afforded relief, and the pleural and other dropsical effusions were absorbed, the patient dying fully two years after the operation.

Dr. Tyson thought that the disease being situated at the point, it rather pointed to endocarditis of the cavity than to the ulcerative form. This had resulted in the formation of one of the so-called tendinous spots, which gradually yielding the aneurism had formed. The rupture might have been of some standing, as these interventricular ruptures are stated to be not very dangerous, and compatible with considerable prolongation of life.

Dr. Hughes said there really had been no communication between the heart-cavities as the opening was blocked up by a clot which was evidently old.

Pernicious Anæmia.

Presented by Dr. W. E. Hughes.

George G. C., white, æt. 45 years, a clerk was admitted into the University Hospital, February 4, in an intensely exhausted condition, with a history of an illness lasting over two and a half years. He had lived for the last twenty years along the banks of the Potomac in the midst of malaria, and had had ten years ago intermittent fever lasting two months. His habits were all regular, and he denied any venereal taint. For the last three or four years he has been much

worried by family and business affairs. His father and a paternal uncle and aunt died of apoplexy, his mother and all her brothers and sisters of phthisis; of his own generation all the members were perfectly healthy. He was unmarried. Till he went into the army during the war, he was well and strong; while there he had an irregular malarial fever, from the consequences of which and of exposure, he never thoroughly recovered. Two and a half years ago he was attacked, without any obvious cause, by diarrhœa, and though his appetite and digestion remained good, he lost flesh and strength rapidly. His urine at this time was much increased in quantity, and was said to contain sugar. The diarrhœa continued for some months, and he became reduced almost to a skeleton; then it ceased, the urine fell to its normal quantity or even below, and he regained much of the flesh he had lost, though his strength and general condition remained far below par. After some little while of this apparent improvement, he again commenced slowly to fail. Till within three months the functions of the gastro-intestinal organs were apparently well performed; since then he has had some slight heaviness in the epigastrium and flatulence soon after eating a hearty meal, and the bowels have shown a tendency to constipation. Since last June he has been unable, from intense weakness, to perform any manual labor. There has been no hemorrhage. On admission, he was too weak to raise himself in bed, intensely anæmic, the whole cutaneous surface pale straw-colored, the veins showing through as pink lines, the mucous surfaces scarcely distinguishable from the skin, and moderately emaciated. There was no œdema. The heart action was excessively weak, with the apex beat in the usual position, and over the body of the heart was heard a soft blowing systolic murmur, lessened in intensity by firm pressure with the stethoscope. Over the jugulars and the lateral sinuses was heard a remarkably distinct venous hum. With the exception of a slight failure of eyesight, the special senses were normal. He answered qustions intelligently but slowly, as though too tired to think rapidly. In the lower extremities he complained bitterly of a feeling of soreness, saying his legs felt as though they had been beaten with a stick. In twenty-four hours he passed one quart of urine, acid in reaction, no albumen, no sugar, specific gravity 1012. Two days afterward, he was weaker and had lapsed into a mild wandering delirium. Examination of the blood gave 665,000 red corpuscles and 6,000 white corpuscles to the cubic millimetre. The red were rather pale, exceedingly variable in size, some of them being twice as large as normal and others very small, and many of them tailed, and otherwise irregularly shaped. Examination of the eyeground was rendered difficult by his delirium, but no retinal hemorrhage could be detected. He died February 8.

Autopsy (notes by Dr. Formad) *Three Hours after Death.*—No rigor mortis. Moderate amount of soft, flabby adipose tissue, especially beneath the peritoneum. Blood pale, everywhere fluid, no clots even in the heart. The marrow in the tibia, humerus, and sternum was red; the fat in a great measure being substituted by leucocytes and forms intermediate between white and red blood-cells, and a few giant cells. The heart was rather small and very pale, valves were normal. The lungs contained a few calcified nodules in the apices, and were universally adherent to the chest walls and diaphragm. The bronchial and mediastinal glands were enlarged, and some of them calcified. The liver weighed three pounds, and was pale and anæmic. The spleen was normal in size and rather congested. The pancreas was rather diminished in size and indurated. In the left kidney are a few depressed cicatrices not unlike old gummata. Kidneys are with this exception normal and anæmic. The stomach shows some evidence of chronic gastritis. No enlargement of any lymphatic glands other than those noted. Nervous structures were not examined.

Dr. Formad said that the marrow, especially of the upper extremities, showed in a marked degree the typical currant-jelly appearance first described, he believed, by Drs. Pepper and Tyson.

Dr. J. H. Musser said that some of the clinical features of the case were unusual, especially the absence of retinal and other hemorrhages. The heart, too, is usually fatty, and he had thought that medullary bone-changes were unusual, the text-books on pathology containing such statements. He brought the matter forward, as he would like to have some light thrown on such discrepitant statements.

Dr. Bruen thought that the bone-changes occurred more frequently when the case was idiopathic than when there was a malarial history, as in one case seen by him.

Dr. Tyson said that the description of pernicious anæmia in the pathological text-books was very vague, and no mention was made of bone-changes such as described by Dr. Pepper and by himself in Virchow's *Archives* some years ago. This paper seems to have been entirely overlooked.

Dr. Sidney Roberts had had the opportunity of examining the fractured femur of a woman suffering from this disease, when he noted appearances identical with those presented by the humerus before the Society this evening.

Excision of the Shoulder-Joint.

Presented by Dr. C. B. Nancrede.

Anne M., æt. 17 years, was admitted to the Female Surgical Ward of the Episcopal Hospital, May 14, 1883. One year ago last May she fell down stairs and struck her shoulder. She was unconscious for a short time, but was soon able to walk home. The arm did not become inflamed, and seemed, to the patient, well. Nine months after the fall she noticed pain in the shoulder, and an elevated papule formed near the joint, which was opened at the dispensary. This relieved the pain, but left a fistulous tract discharging healthy pus. She attended the dispensary until the 14th of last May, when she was sent into the house, Dr. Seltzer, the assistant surgeon on duty, having touched dead bone with the probe. After admission, she had pain from time to time, gradually increasing in intensity until shortly before operation. Other free openings for drainage were made by Drs. Simes and Kelly. The probe detected an apparent sequestrum with the humerus head.

Diagnosis.—Epiphyseal abscess and strumous disease of the joint. The operation showed complete destruction of the joint, a carious and denuded humeral head, with an abscess about the epiphyseal site containing a sequestrum. The glenoid cavity was denuded of cartilage and toughened. The portion of head and shaft such as you see were removed, while all the glenoid cavity was cut away with the gouge forceps, except where the long head of the biceps was attached. Further details of the operation are unnecessary. The patient was practically well at the end of two weeks.

Excision of Astragalus.

Presented by Dr. C. B. Nancrede.

Elvira ———, æt. 9 years, mulatto, a patient in the Children's Surgical Ward of the Episcopal Hospital, received some slight injury of the right ankle-joint about one year ago, since which the usual symptoms of strumous arthritis have been noted. About two months since, Dr. Packard freely opened the articulation and inserted an oakum seton. Temporary benefit ensued, but February 13, 1884, I found the bone so diseased as to demand excision. This was effected with great readiness by a semicircular incision upon the outer side of the joint, whereby the peroneal tendons were exposed, their sheath partially opened, thus admitting of their being drawn to one side, and the ligamentous structures of the astragalus easily divided. The bone was partially anchylosed to the under surface of the tibia, and nearly all of its tibio-fibular cartilaginous surfaces were bared and carious. All the other tarsal bones seemed perfectly healthy.

Specimens from a Case of Extensive Trephining of the Skull.

Presented by Dr. Nancrede.

These specimens, consisting of nearly the whole right squamous plate of the temporal bone, the inferior angle of the parietal, and a portion of the frontal—in other words, the anterior two-thirds of the temporal fossa, from the orbital plate nearly to the temporal ridge, and from the external angular process of the frontal to a line posterior to the external auditory meatus—were removed by me from a man this day, who had been struck by an iron lever, which caught his head between it and a large beam. Although the depressed area must have been fully an inch deep, yet he walked into the Surgical Dispensary of the Episcopal Hospital, presenting apparently neither motor, nor sensory disturbances; pupils and tongue normal. He was at once sent up to the Male Surgical Ward, and I proceeded to trephine, cut away the overhanging shelf of sound bone with the "rougeur," and thus elevate and remove over a dozen fragments of bone. The dura mater seemed uninjured. As the specimens show, the middle meningeal artery must have been torn, and fortunately twisted in removing the fragments, as it was completely surrounded by a bony canal. One branch in the meninges was tied with fine cat-gut ligature, and the wound, as well as a deep scalp cut on the opposite side, were dressed with mercuric bichloride.

EDITORIAL DEPARTMENT.

PERISCOPE.

Abuse of Medicines.

Dr. R. H. Gunning tells us, in the *Edinburgh Medical Journal*, June, 1884, that he believes strongly in the proper use of medicines, as anodynes, emetics, purgatives, diaphoretics, diuretics, etc., but he is also sure of much abuse of them. In 1834, while attending a provincial infirmary, he was struck with the recovery of patients given up to die. The medicines, especially mercury, iodine, and iodides, would be suspended, and the nurse have orders to treat the patient kindly before dying. Immediately recovery would occur! This impressed him, and ever since in practice he has studied whether medicines were doing good or harm. He always held, and still holds, that homœopathy is chiefly the non-abuse of medicines. In the time of Dr. Black and Professor Henderson, of Edinburgh, when this question was once publicly discussed, he challenged its advocates to try 100 cases without medicine and 100 cases treated *secundum artem* against 100 treated homœopathically. He affirmed that, in the first case, the result would be as good as in their 100 cases, and that in the second mode there would be more success. The challenge was not taken up.

In Brazil his success was in cases treated by others. He merely suspended medicines, and put the patient upon hygiene, science, and common sense, correcting ignorance, neglect, and bad habits as to food, air, exercise, baths, etc. His success in chronic cases was great, and people declared that he must have used medicines, and very strong ones, too, for he could not have made such cures otherwise! Some selected cases, further on, will be examples of this abuse of medicine, of diet, and of the horizontal position.

Emetics, purgatives, anodynes, etc., relieve symptoms, but do not go to the root of the matter—error in diet, dress, habits, ventilation, etc. As symptoms recur they have to be repeated. This was the English system of "dose and cure" of the glutton or the beer-swigger, only to "dose and cure" him again. The pills, potions, and powders were the general practitioner's chief income, more than from *honorariums*. But homœopathy, with its metaphysics and paradoxical wonders, and hydropathy, with its hygiene and appropriated science, have done much to correct this abuse of drugs.

Mercury is a good medicine, in its place and in careful quantity, as is iodide of potassium. They will destroy abnormal exudations or organization, and the germs of syphilitic taint, but carried beyond this object they will debilitate and destroy

the body itself. Quinine is a good tonic and specific, but in large doses it is most pernicious. And why in big doses, if small ones will serve? What deafness and loss of sight has it not caused? He has known a child made deaf and dumb with one large dose. He has seen delicate patients take fifty grains in a day and succumb, whose stamina were not equal to ten grains. Small repeated doses can do all, he believes, that large doses do, without doing the mischief.

At first when yellow fever appeared in Rio, the deaths were few when an emetic or castor oil were given early, and the case was left to careful nursing. Since then, and now, a large part of the mortality is from so-called scientific or guessing and heroic treatment.

So with chloral and chloroform—both good agents when carefully used. He knows little of chloral in practice, but he has studied chloroform, and he believes few accidents would occur if it were well understood. When Sir J. Simpson introduced it into practice he made many experiments on dogs and rabbits, and was convinced that it acts directly on the capillary circulation in the lungs, and that death occurs after the manner of drowning when taken too long or too much. If this is so, then it is all-important not to continue its operation too long. A person under water so many minutes may recover, but when so many minutes more it is fatal. The assistant who gives chloroform should understand this, and be most watchful. He should note the quantity used and the time, and it should only be given *on the operating table*, and when all is ready for operating. Thus the time is shortened all possible—the great point. It should not be applied and withdrawn at first, but allowed to have its effect at once. Inattention to this wastes much chloroform, lets the air disengorge the circulation in the lungs, reawakening the patient, and saturates too much the body. A good simple plan is the piece of surgeon's lint laid over the nostrils and mouth, and wetted sometimes if needed. If overdone, fresh air and artificial breathing are indicated, the start for reaction being in the lungs, not in the heart. He could easily restore dogs apparently dead by tracheotomy.

He concludes by mentioning some cases which will show the influence of these four circumstances, namely, diet, position, hot water, and suppression of drugs.

1. A young slave woman had a chronic ulcer on the shin, of seven years' standing. Various doctors had been consulted. Iodide of potassium and calomel were used in succession till most of her teeth were lost, in the belief that she had a syphilitic taint. Caustics and ointments were used externally. The ulcer looked hardened and desperate, and he concluded that, besides the irritating effect of the said medicines, externally and internally, the limb had not had due rest. He simply suspended the medicines, ordered a linseed poultice to keep soft the ulcer, and had her strictly confined to bed. In six weeks, more or less, her health was better, and the ulcer was cicatrized. Here the health was improved, no doubt, from suppression of medicines, but the cure of the ulcer was mainly due to diminished congestion. In short, she had been previously treated without due attention to position, etc.

2. Next, a gentleman consulted him about a large ulcer on the anterior inner part of the thigh, of thirteen years' standing. The whole limb was swollen and anasarcous. He had been the round of the doctors within a large circle. He thought the ulcer had been treated without due attention to position, and declared he would not treat him without a solemn promise that he would keep absolutely in bed. He started him with a dose of comp. powder of jalap to assist the riddance of the anasarca, and to convince him that he was using medicine, for medicine they must have. And, without more than a linseed poultice, diminished diet, and horizontal position, he was well in a couple of months or so. He saw him ten years afterwards, quite well.

3. A gentleman patient suffered from an obstinate stricture of the urethra of some years' standing. He would not allow cutting of any kind, and the surgeons in the city who had attended him were unable to pass any sound. The urine was passed by several openings under and about the scrotum, which was ulcerated, and nearly the size of a man's head. He was ever up and on his feet, washing and passing urine, and he saw a good chance of bettering his state by removing all this source of congestion and exudation. He ordered him, several times a day, a very hot hip-bath to soothe the parts (for nothing soothes like hot water), and then had him put to bed, with strict injunctions not to rise except for real necessity. He made him cross his legs, not to let the large tumor depend, and dressed the raw surface with simple ointment. He also lowered his diet, to facilitate absorption of the exuded matter, and allowed him to drink much rice-water to produce mild urine, as salted, strong urine, irritates the rawness of the urethra and fistulous openings. In a week or so, the swelling was down, as by a charm, the fever gone, and the parts again almost natural. He found he could get his smallest sound into the stricture. In the course of a day or two more he got a very small bulb-pointed one through. By-and-by, he passed other sizes, up to the largest, when the fistulous openings closed, and a complete cure was effected. This was done by keeping him merely horizontal, and the tumor elevated, not dependent. The soothing hip-bath, the reduced diet, and the diluted urine all helped, but the main thing was position, neglected by others more dexterous in manipulation than himself, but less cunning about the importance of position, hot water, and lowered diet.

This same gentleman returned in a similar condition, after more than ten years, declaring that the surgeons of his city could not pass the sound to dilate, and that he could not submit to any incision. He was treated as before; he returned home in two months or so, again cured.

He gives another case. A vicar, looked upon as a saint far and near, had a pimple on the upper part of his penis, behind the gland. His brother-in-law, licensed in Italy, and another, a graduate of Paris, treated him. Caustic was applied, but only inflamed the part more. Then they assumed that it had a syphilitic taint, and gave him mercury till the gums and all his bones were sore. The caustic was continued, and resulted in a subcutaneous fistula. Into this yel-

low wash was injected, and sloughs came away. The more sloughing the more injections, till the fistula reached under the pubic arch. The member got immensely enlarged, and also the glands of the groins. Then it was called cancer, and no hope of a cure could be given by them. The poor vicar made his will, and took the last sacrament of the church. Considered a very saint in the province, the lamentation was great at the prospect of losing him. An English doctor from a distance was called in. Going to dine with a large landed proprietor, and meeting his English collague, he asked to see the patient. He said he could only think of amputation, but that he did not mean to operate on the vicar. When at dinner a note came to him from a devoted friend of the holy priest, wishing him to see him and not let him die. He said he could not go so far, having duties at home. His host said he must go, as the vicar was his cousin. Horses were got ready, and they galloped over the Campo twenty miles by moonlight, in the cold time of the year.

When he saw the sick man, he thought him poisoned with mercury and iodide of potassium internally, and externally by yellow wash. He did away with all, had warm flannels got, and a soft mattress to keep him warm instead of his hard bed and charcoal fire, filling the room with carbonic acid. He gave him a very warm bath with his own hands. With this comfort, and that of warm clothes and a soft bed, and the suppression of irritating drugs, he slept, for the first time for long. He injected warm water instead of yellow wash. The sloughing ceased, and the fistula closed, and the swelling everywhere diminished. In less than two months he was saying mass in the parish church, and the cure was regarded as a miracle.

A large part of this cure was the suppression of irritating, poisoning drugs; but the hot water, and strict lying position, were all great factors in the result.

These are illustrations of what position, the non use of drugs, and the use of warm water and diet, do in medical cases. He gives a recent case, if not of the abuse of medicine, at least of its non-usefulness.

All know how the greatest statesman of the age (Gladstone) has suffered from gastritis and torturing gastrodynia. The routine of mere scientific prescriptions could do nothing for him. At length, in the hands of Dr. Schweninger, of Munich, he has been fortunate. This gentleman has discerned the case better, and enforced strict diet and a general change of regimen, and the great chancellor is again well and at work.

In conclusion, more attention should be given to hygiene, and less trust put in drugs.

The Hypoglossal Nerve in Connection with Syphilitic Glossoplegia.

The *London Med. Record* tells us that in the Berlin *Charité Reports*, Band viii., 1883, Lewin treats of the above. Amongst 50,000 cases of syphilis he found nineteen with gummatous glossitis, and three in his private practice, all these twenty-two being affected with paralysis. The histories of two patients are given in full; one suffered from hypoglossal paralysis on one side, with symptoms almost like those of bulbar paralysis, and was cured by sublimate injections. The other presented atrophy of half the tongue, with nodes at its root; deviation of the point to the diseased side (so that it scarcely projected beyond the teeth); failure in raising it to the hard palate; difficulty in masticating, in swallowing, in speaking quickly and for long, and in phonating the letters *d*, *t*, *l*, *n*, *r*. There were also lowered and delayed taste-perception on the left side of tongue; with lowered perception of movement, position, temperature, pain, and electric irritability; salivation, and lastly, a great paleness of that side. *Post mortem*, two gummatous foci were found in the skull; one between the dura mater and the bone to the left of the vertex, the other upon the hypoglossal nerve itself. This nerve, anterior to the condyloid foramen, and partly within it, was embedded in a greyish-white jelly-like gummatous mass. The root-paths of the nerve in the medulla oblongata were unaffected; the trunk alone was involved. A complex of veins existed about the nerve as it entered its canal, like a small cavernous tumor; this evidently arose from the venous circle normally found around the nerve there. The nucleus of origin was normal.

Lewin comments thus upon this case:

1. The *motor paresis* of the tongue was due to the paralysis of its muscles (the genio- and styloglossus, the longitudinal—superior and inferior—and transverse strata, and the genio-hyoid).

2. The *want of taste* is ascribed to pressure by gummata upon the peripheral ends of the glossopharyngeal in the circumvallate papillæ. Lewin is thus of opinion that the chorda tympani holds its gustatory fibres only from the glosso-pharyngeus (by the following route: petrosal ganglion, tympanic plexus, small superficial petrosal, otic ganglion).

3. The *salivation* is explained as a reflex act, most probably through the glosso-pharyngeal nerve.

4. The *local anæmia* was the result of compression of the lingual nerve, which, according to Vulpian, holds vaso-dilator nerves for the tongue.

5. The *stuttering or stammering* might be caused either by lessened size of the tongue, or by compression of the fibres of origin of the hypoglossal nerve by the vertebral artery (Willis, "freno injecto circumligans"), or lastly, from pressure of the swollen circulus venosus upon the nerve at the condyloid foramen.

In the historical sketch the various views of the functions of the hypoglossal nerve, from Galen down, are given. Longet says it is only sensitive over the great cornu of the hyoid. Of late years, anatomical search has been made for any nerves which might afford sensory fibres to the hypoglossal. These are detailed thus in the anatomical section. Some authors have thought that the sensory fibres are derived from a small posterior root, provided with a ganglion, like a posterior spinal nerve. Lewin remarks that such a root does not occur in man, and also contends against the view that the superior cervical ganglion sends sensory fibres to the hypoglossus. The anatomical relations of the hypoglossal with the cervical nerves, the vagus, and the lingual nerve are fully detailed.

No satisfactory conclusions from anatomy being

at hand, Dr. Lewin, with Dr. Holtzer, made experiments upon dogs with the following results:

1. The peripheral end of the hypoglossal nerve contains sensory fibres. 2. In most cases these are not derived from the lingual; but (3) arise from fibres accompanying the nerve-trunk. 4. Between the descending branch (descendens noni) and the anastomosis with the lingual, there pass sensory fibres, some from the lingual, others from the hypoglossal. 5. Lingual nerve-fibres descend also in the descendens noni. 6. No sensory fibres pass from the cerebral end of the hypoglossal to the descending branch. 7. Sensory fibres arise in the last-mentioned, apparently from the cervical nerves. 8. Fibres from the lingual nerve (on the distal side of the descendens) run backwards along the hypoglossal to its exit from the condyloid foramen. 9. The hypoglossal itself has no sensibility from its root down. 10. Sensory nerves travel with the hypoglossal (independently of the above-mentioned fibres from nerves elsewhere, by anastomosis) immediately after its exit from the skull; either from the vagus or from the cervical region of the spinal cord.

Sea-sickness.

In the course of an article in the *British Med. Jour.*, July 26, 1884, Dr. Astley Gresswell says:

This complaint varies greatly in degree. Some never suffer from it; they are, however, in a decidedly small minority; some suffer severely at first, but quickly acquire toleration: others apparently never succeed in wholly overcoming the effects of the movement of a ship at sea. We may mention that it occurs in some birds, and is known in many quadrupeds. Most children in health quickly acquire toleration. Women suffer perhaps more generally than men; and it is rare to meet a woman who, though a great traveler by sea, does not suffer severely when a vessel is freely pitching. It is common, also, to meet men who, though great sea-travelers, suffer somewhat when a vessel freely pitches; the customary pipe is not taken, the appetite is in abeyance, and there is a decided preference for the recumbent posture. The suffering is most marked when there are both pitching and rolling, or, as some say, wriggling. The voyager generally quickly becomes adapted to rolling when occurring alone, but not so readily to pitching, which is the movement that longest retains its influence; the symptoms also are the more severe the greater the angle through which the vessel pitches, so that, for instance, the occupants of stern-cabins suffer more than those of cabins amidship; and, moreover, they are more severe when standing than when sitting or lying. Pitching would, by virtue of the law of inertia, cause sudden changes in the amount of fluid contained within the cranium. During the descent there would be some addition to the intracranial fluid-pressure, and during the ascent some reduction of it. In rolling, again, similar alternations of pressure doubtless occur, but they would not be so great, for a ship generally rolls through a much smaller angle than that through which it can pitch.

Pitching would also cause many other changes in the body; it would, for instance, cause sudden slight tractions upon the mesentery, small omentum, and suspensory ligament of the liver, in consequence of the inertia of the small intestines, stomach, and liver; and one may be tempted to suppose that, in this way, pitching may cause reflex vomiting. It would perhaps act similarly upon the aorta, by reason of the inertia of the heart. If, however, pitching cause sudden changes of intracranial fluid-pressure, we might expect to find vomiting associated with it. Anæmia of the brain causes vertigo, nausea, and vomiting. These symptoms are present in cases of hemorrhage; they also occur on suddenly taking the erect posture, and especially is this the case with anæmics and convalescents; a convalescent typhus-patient will sometimes vomit while being helped to sit up in bed; and a patient rendered anæmic by hæmatemesis will very probably vomit if raised, so that, if raised before the vessels have thoroughly healed, the latter may be opened up afresh. Thinking that sudden changes of intracranial fluid pressure had to do with the symptoms of sea-sickness, I tried the administration of ergot and digitalis, hoping, by raising the blood-pressure, to reduce the effect of pitching upon the intracranial fluid. I gave these drugs freely to as many as a hundred and ninety persons suffering from sea-sickness; and, in very many cases, they apparently acted remarkably well, some (especially lads) requiring no more than one or two doses. I should say that chloroform also was almost always given. It may be premature to suggest a *rationale* as to why sudden changes of intracranial fluid should be attended by nausea and vomiting; it may be owing to a disturbance of the coördinate action of the higher cerebral centres, or of the lower more automatic centres; it may be that it acts upon these centres by disturbing the perilymph or the endolymph.

The peculiar sensation in the chest and abdomen when swinging, or at the sudden start or pull up of a railway carriage, may be attributable to change of mutual pressure of parts within the abdomen and chest. Swinging often indeed causes sickness; but the movement of swinging differs greatly from that which is undergone in a ship when freely pitching. In pitching, there may be such sudden change from ascent to descent, that one feels as if left in the air; and, again, such sudden change from descent to ascent, that one feels as if about to pass through the deck. And it is, I think, just this fact of sudden interruption of the movement that constitutes the difficulty to be overcome on a ship; moreover, it is just at these times, and often only at these times, that great sea-travelers experience nausea.

This view of the etiology of sea-sickness may be objected to on the ground that quadrupeds suffer from it. Pitching would, however, act on the intracranial pressure of the quadruped, when standing, in the same direction as, though to a less degree than, it would in the case of man.

Whether, however, the etiology here advanced be correct or not, the drugs above-mentioned seemed to act so well as to justify, I have thought, these few remarks. It may be well to add that some irritants have a marked effect in checking, at any rate, the vomiting of sea-sickness; and of these, the most useful, perhaps, is tincture of capsicum; spiritus ammoniæ aromaticus also is of value.

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ACUTE TRAUMATIC MALIGNANCY.

Some two years ago, we had occasion to call attention to a condition of affairs where, owing to some inherent peculiarity of constitution, some tumor-favoring diathesis, an injury that, under ordinary circumstances, in a healthy person, should heal kindly, will rapidly run into the state of malignant disease.

Mr. Richard Barwell, in his introductory remarks in the paper to which we then alluded, says: "The cases on which the name is founded made a great impression on my mind, leading me to think that occasionally under the stimulus of severe irritation the tissue elements, which under favorable circumstances would assume only the additional activity necessary for repair, may exhibit a more prolific cell-germination, culminating in a rapid form of malignant disease in one of those forms, whether named myeloid or round-celled sarcoma or encephaloid cancer, which consists of little else than heaped-up cells and their progeny."

The fact that such unfortunate and unexpected changes do take place sometimes has been made repeatedly evident to us, and it seems to be a subject well worthy of further investigation and elucidation. Therefore are we pleased to note that in the *Lancet*, July 26, 1884, Dr. Lambert H. Ormsby contributes more information on the subject. Before relating some cases, he gives the results of his experience as follows

"In the following cases it will be found that malignant tendencies rapidly developed after the receipt of local injury. I would, however, be inclined to think that, without some inherent malignant constitutional tendency, a local injury would not be followed by anything more than some slight temporary benign irritation and inflammation necessary for the healthy reparation of the part. For it would appear, according to Billroth, that the development of tumor depends upon two factors: 1. The inherent tumor-forming diathesis. 2. Local irritation, which may be either inflicted suddenly or may be of long-continued duration.

"As already mentioned, in healthy individuals we find local injuries, such as wounds and blows, merely go through the benign and natural processes sufficient for repair, such as inflammation,

ulceration, suppuration, and cicatrization, and such injuries produce no bad constitutional or local effects whatever. On the other hand, in patients with a constitution having a hereditary tendency to tumor diathesis, small skin wounds and other slight injuries are rapidly followed by a very fast-growing malignant tumor at the original seat of injury. From this, then, it would seem that although the tumor diathesis may be present in the body of a given individual, the condition may be harmless for a certain limited time, or for a very considerable period, as it requires another factor to complete the process of malignant development, and such factor, it would appear, is frequently contributed by a traumatism or other local irritation of one kind or another; and should the latter factor of local irritation be wanting, no malignant development takes place.

"Take, for example, the lower lip, a very common situation among certain classes of epithelial cancer to make its appearance. In early stages, and up to a certain point, I would think that only the tumor diathesis was present—in fact, that it was in a pre-malignant condition. To this add the factor of continual local irritation by means of the heated stem of a short clay pipe, and you have epithelial cancer very rapidly developed. Also, in malignant tumors of the breast, the tumor-producing diathesis may be present for a considerable time, and no malignant development take place until a blow or other injury is received at the part, and rapid enlargement and growth follow."

COMMITMENTS TO LUNATIC ASYLUMS.

An important case in England recently brought up for criticism the method of procedure in committing persons to insane asylums, and the judges condemned quite severely the means often taken by interested persons to secure commitments. The suit was against Dr. Forbes Winslow, the alienist, by a Mrs. Weldon, the person whose insanity was alleged. The charges were of assault and battery in attempting to carry out the commitment, and of libel in writing to Mr. Weldon that she was a proper subject for incarceration. The defense interposed by Dr. Winslow was, that he had acted under the lunacy statutes in attempting to take Mrs. Weldon to the asylum, and that he had written the letter as a physician, without malice, and it was therefore a privileged communication.

Dr. Winslow was successful in his defense on the first trial, but this judgment was finally reversed on appeal. It appeared that Dr. Winslow was the proprietor of the private asylum where Mrs. Weldon was to be confined, and he was one of the two physicians who made the examination required by law as to her sanity. The court therefore held, that as he would receive compensation for her confinement, he was interested in giving such a certificate as would enable him to take her to the asylum. He was not, therefore, a disinterested person, and no one should be deprived of liberty where there was any question as to the possible motives. The court did not decide that Dr. Winslow had acted improperly, but that the facts warranted the submission of the case to a jury which had been refused by the trial judge. It also appeared that the method of examination was peculiar and improper. The law required two separate and independent examinations of the patient, but the two physicians who gave the certificate went together to the house, and after having an interview together with her, took turns in stepping out so that each might make what would be called a separate and independent examination.

Under these circumstances it was held that a jury should have decided as to the propriety of the course taken by Dr. Winslow, and as this was not done, the judgment must be reversed.

WHO SHALL PAY PHYSICIANS EMPLOYED TO ATTEND THE POOR?

A physician who renders his services to the public poor, or in any capacity where the compensation is to be paid from the county or city treasury must see to it that his employment is from the proper authorities, or else he can not recover the value of his services. He may act in perfect good faith, but if the appointment is not from the source which the law recognizes, he must secure his pay, if he secures it at all, from the persons who employed him.

This appears from a recent case in Iowa, where the following question was submitted to the court: "When the board of supervisors of a county in

which there is no poor-house, employs a convenient and competent physician to furnish to all the poor persons of the county all medicines and medical aid that such poor persons may require, while such physician is so employed, and ready and able to furnish such medicines and medical aid, may the trustees of the township in which the physician resides disregard such employment made by the board of supervisors, and employ other physicians to furnish medicines and medical aid to the poor persons of said township who make application to them therefor, and bind the county for the payment of medicines and medical services rendered or furnished by such physician employed by the trustees?"

The circumstances of the case show that the Iowa law provides for the care of the sick poor by the trustees of the township until the supervisors provide for such care, but does not make provision for any conflict of authority between the trustees and the board of supervisors. It seemed that the supervisors had a regularly appointed physician, ready to attend to all cases, and the trustees, instead of calling on him, employed another physician, and the latter after rendering the services desired, sued the county for his fees. At the first trial the physician was successful and obtained a verdict; but on appeal, when the above question was submitted to the higher court for decision, it was held that the verdict must be reversed. The ground of the decision was that the township trustees could not bind the county for medical services when there was a regularly appointed physician whom they might employ, but did not want to.

Notes and Comments.

Antipyrin.

The reports concerning the antipyretic effect of antipyrin accumulate, and prove that the remedy does not only cause a decided and prompt reduction of temperature, but has also the great advantage of not being accompanied or followed by any of the disagreeable effects of quinine.

Antipyrin is best administered in hourly doses of 32+32+16 grains, so that within two hours the whole dose of 80 grains is taken. The reduction of temperature varies from 2 to 6 degrees, and sets in gradually. As soon as the effect of antipyrin has ceased, which usually happens within five hours after the last of the three doses mentioned, the temperature continues stationary for an hour or two, and then slowly ascends to its former height, if meanwhile no more doses of antipyrin are administered. In a case of tubercular phthisis, with hectic fever, where the temperature rose every afternoon at three o'clock to 104½°, the first dose of 32 grains of antipyrin was given at 12 m., the second of the same quantity at 1 p. m., and the last of 16 grains one hour later. The temperature at 3 p. m. rose but to 99½°, and continued at that height till 8 p. m., when it again ascended to 100½°. If a fourth dose of 32 grains was administered at 6 p. m., the temperature declined still more, until it reached at 8 p. m. 98°, when it again gradually crept up to 99½°. No nausea and no tinnitus aurium were observed.

Recently Dr. C. Rank reports, that the drug occasionally causes nausea and vomiting, if administered internally (*Allg. Med. Centr. Zeit.*, 52, 1884). He therefore made use of it by the hypodermic method, and found it, in a series of fifty cases, not only to answer admirably well, but to have a still prompter and more decided effect than if given internally, but also never to produce any disagreeable symptoms. As antipyrin dissolves in cold water but sparingly (1 : 3), and as 32 to 64 grains must be injected under the skin to obtain the full antipyretic effect of the drug, Dr. R. made a trial with hot water, and discovered that 16 grains of antipyrin dissolves in 8 minims of hot water, and that the remedy does not precipitate when the solution has cooled down. After having been kept in a room for a period of eight days, this solution was still clear. One or one and a half syringefuls of it suffices to produce the antipyretic effect of antipyrin.

The injections were usually made in the region of the glutæus muscles, and with the exception of a very slight and transient pain, no local symptoms showed themselves at the place of injection, no inflammation, hardening or formation of pus. Where internally, eighty grains are necessary (32+32+16 grains administered hourly), R. succeeded with one hypodermic dose of one, or at most one and a half syringefuls of his solution. According to his experience, the maximum of decline of temperature happens about three hours after the injection, and continues from six to eight hours.

It is well known that with one or two doses of sulphate or muriate of quinine, of thirty grains each, we may obtain a similar antipyretic effect; but quinine has the drawback in such doses generally of inducing vomiting, and often tinnitus aurium, besides producing not seldom other more dangerous symptoms due to congestion of the brain. That antipyrin, while possessing, if possible, a still prompter antipyretic effect—more decided and more lasting—has none of these disagreeable symptoms, makes this drug so valuable. To these facts may be added, as of not less importance, the facility with which antipyrin can be subcutaneously employed. Lastly, it is but half as dear as quinine.

The Treatment of Pernicious Intermittent Fever.

Dr. W. H. Reed reports an interesting case, which yielded to treatment, in the *College and Clinical Record*, August 1, 1884:

His treatment was as follows: Immediately a hypodermic injection of one-sixth grain of morphiæ sulph.; hot sand-bag to lumbar region; one pil. podophyllin comp., and two grains of quiniæ sulph., in pills, every two hours, until twenty grains were taken. He was sent for hurriedly, with the statement that his patient was dying. On his arrival by her bedside, he found her in a sinking condition; in the meantime she had had several convulsions; was now at times in a low delirium, muttering inaudible and unconnected sentences, and picking at the bed-clothes. Her countenance was relaxed, tired, worn, and haggard; skin somewhat cooler, and pulse almost imperceptible; heart sounds feeble; respiration slow and gasping. The pain had left the back, from the application of the sand-bag. He immediately stimulated her freely with whiskey, which at first produced retching, but not vomiting; then he was informed that on two occasions previously she had vomited blood. He ordered dry heat over her stomach, which successfully allayed further vomiting and retching, thereby enabling her to retain all medicine administered. A strong milk punch was given at intervals during the night, and the quinine pills continued as before ordered. Next day he found his patient much improved; she was lying quietly in bed, her mind clear and buoyant, but she was much exhausted and debilitated. The delirium passed off about midnight, and her bowels moved freely toward morning. Her skin was almost normal in temperature, and but slightly jaundiced; heart sounds regular, but slightly feeble; respiration normal; no thirst; tongue coated with a rather heavy fur; she ate some prepared gluten and milk for breakfast. He prescribed—

℞. Hydrargyri chloridi mitis, gr. ij.
Pulv. ipecac., gr. ij.
Pulv. ingluvin, ℈j. M.
Fiant chartæ viij.
Sig.—One to be taken every two hours.

He also gave her ten-drop doses of Fowler's solution three times a day. When he saw her again two days later, his patient was out of bed, with skin comparatively clear; appetite returned, and she was commencing to feel strong again. At the septenary periods he prescribed twenty-four grains of cinchoniæ sulphas. One week later he diminished the Fowler's solution to five drops three times a day. Two weeks later he saw his patient; she was feeling exceedingly well, with no symptoms of a recurrence of the chill.

Regulation of Diet.

As illustrating the great importance of this all-important question, we are glad to quote the following remarks from Dr. R. H. Gunning (*Edinburgh Medical Journal*, June, 1884):

The function which influences all others most is digestion. This all right, all is right, and *vice versa*. Cures, after operations, are accomplished by nutrition; and this will be good, or the contrary, as the digestion is good or the contrary. This subject of digestion and nutrition should be well understood by surgeons. The preparing a patient for an operation, or treating him after, hang much on this. Whatever dexterity a surgeon may have, he should also understand physiology well to have success. He may fail sometimes from neglect of the simplest dogmas of physiology. A friend and myself, when abroad, had many cases of cataract. We did the operation in the same way; he better than I, for I had no gift of hands. He lost very many of his cases, and mine succeeded. He said, one day, he could not understand this. I replied, "It is simple; you let your patients *eat and drink* as they and friends like after the operation; while I starve mine for one or two days, till the wound is healed and the retina is safe." A full stomach or improper food will soon befool the best-done operation. I have cured serious fractures without fever intervening merely by semi-starving the patient. In my own case, when shot in the head, I abstained from all but water, or a little tea or dry toast, for days, and had scarcely pain and no fever or erysipelas. After days I used stewed prunes, potatoes mashed with salt butter, to be simple and laxative. I took no wine and no

meat for weeks, and a remarkable cure was the result.

In all cases, medical or surgical, attention must be given to the digestive organs, to see that no peccant or irritating matter exists, and that they be carefully watched afterwards.

I once treated a lad for fracture of both thigh bones, a bullock-car having passed over his limbs. I set the limbs, and kept him semi-starved for days. Only gruel or weak chicken broth was allowed. He had no fever, and got round beautifully. On another occasion the car passed over him and killed him. In short, let all ingesta be in the smallest quantity, and of mild quality, to avoid inflammation. Spirits in every shape are injurious.

Phosphorus in Craniotabes.

That phosphorus, administered internally, greatly influences the nutrition and the growth of bones, has been conclusively proven. This remedy would find, therefore, its main indication in those diseases of the bones due to malnutrition, and specially frequent in childhood. But considering the poisonous action of the drug, and its great danger in children, Dr. Fred. Betz, in Heilbronn (Memorabilien, 4 Heft, 1884), resolved to try its local application. There was one other reason inducing him in children to discard the internal use of phosphorus; that was the fact that we do not possess any criterion by which we might recognize the limits of physiological poisoning, as the œdema of the eyelids, the ophthalmia, the gastric pain, and the diarrhœa, are the warning symptoms, for instance, in arsenious acid.

To a number of children suffering from craniotabes B. applied a salve of phosphorus, rubbing it into the integument of the head. "The results," says he, "were more striking than those following Karsowitz's internal medication. The softness of the occipital bone ceased after a few weeks; the sutures became more prominent, and the fontanelles smaller, while the size of the head greatly diminished. Another remarkable phenomenon was the luxuriant growth of the hair, which not only became denser and longer, but also thicker. The children lost their restlessness, their insomnia and psychical excitement. Two children, that were besides affected with laryngismus stridulus, became quieter and livelier, and the seizures ceased."

In conclusion, B. recommends the local application of phosphorus in the very beginning of the disease, while he does not think so well of its efficacy in general rachitis, though being certain of its absorption by the skin. We ourselves have considerable doubt regarding the correctness of Betz's observations, for such cases often spontaneously improve—*vix medicatrix naturæ*. Still it can do no harm to try the local application of phosphorus in the cases indicated. A series of experiments instituted by those that have plenty of such cases under their charge, and made with the view of determining the effect of the treatment, would soon decide its usefulness or uselessness.

Chorea as a Complication of Pleurisy.

Several cases have been reported where after intra-pleural injections for empyema, fatal epileptiform seizures have occurred. From an English exchange we note that the subject has again been brought under notice by Dr. Weill, of Lyons, who records a case where hemi-chorea was apparently excited in the same way (*Revue de Médecine*, July, 1884). A young man, twenty-four years of age, whilst on military service, was attacked with left-sided pleurisy, for which paracentesis was performed. Empyema followed, necessitating drainage and injections, and it was noticed that the left arm became weak immediately after the operation. A year later a second operation was performed, and six months afterwards M. Lépine, under whose care the patient was, deemed it necessary to have portions of the second, third, fourth, and fifth ribs resected. Two days after this operation the left upper limb became the seat of involuntary movements, and shortly after the left lower limb also. These movements were of a choreic character, and were associated with some hyperæsthesia of the hand and a certain degree of ataxy in the lower limb. The condition was attributed to the pleural irritation produced by the antiseptic injections acting on the spinal cord, and thence affecting in a reflex way the limbs of the same side. This idea of reflex irritation proposed by M. Lépine seems to M. Weill a very reasonable hypothesis, and it would appear as if there were functional and pathological connections between the innervation of the pleura and that of the limbs of the same side, especially of the upper limb. The occurrence of radiating pain in angina pectoris, and of the shoulder pain in hepatic colic, are instances of a similar kind; and the fact that besides the severe and fatal convulsions excited by intra-pleural injections, there have also been recorded numerous instances of hemiplegia associated with like pleural conditions, justifies the notion that in the present case there is an example of chorea excited by the same path.

Veratrum Viride in Puerperal Eclampsia.

Of the various remedies recommended for this disease, we would certainly imagine, reasoning theoretically that veratrum viride was the most dangerous. But Dr. H. W. Brown writes to the *Obstetric Gaz.*, July, 1884, that although he has only used it in six cases, yet he feels sure that these cases prove the efficiency of the remedy, and show that the fears entertained by the profession as to its deadly poisonous effects when given in large doses are unfounded. We will give one of his six cases as illustrating his method of administration:

"March 10, 1884, I was called to Lynchburg, Ohio, by Mr. L., to see his wife in puerperal convulsions. His first wife had died two or three years previous of the same disease, under the chloroform and morphia treatment. As a matter of course, the family were very much alarmed at the second case. When I arrived, I found the case in charge of Drs. Kleckner, of Lynchburg, and Marsh, of Dodsonville. She had had some three or four convulsions, and was very restless and nervous, barely comprehending anything that was said to her. She had been in labor five or six hours, with no progress. The os was not dilated at all, but pains were severe. I recommended ninety drops of Norwood's tincture, which was given under protest by Dr. Kleckner. This was repeated at intervals of thirty minutes, only in smaller doses (about sixty drops each time), until we gave four or five doses, when she vomited and was thoroughly relaxed. In our anxiety concerning the convulsions, we had forgotten to ascertain whether or not the os was dilated. I made an examination, and, to my surprise, the head was presenting in first position low down. We delivered immediately, and our patient went off to sleep with pulse down to fifty. She needed no more treatment, and is well and hearty now.

Algid Collapse.

In *La France Med.*, Hallopeau, under the name of algid collapse, describes a condition characterized by partial or general coldness of the body, accompanied with prostration. He regards the condition as the opposite of what occurs in fevers, and that it is due to an opposite state of the vasomotor nerves to that which is present in fever. The condition is specially observed in cases where the abdominal viscera are the seat of violent irritation, as in cholera, irritant poisoning, intestinal strangulation, and injuries to the abdomen. The lowering of the temperature usually begins in the extremities and face, and may be confined to these parts, but may become general. The contraction of the capillaries in these parts, and the consequent diminution in the amount of heat thus lost, would lead to the expectation that the internal temperature would be raised, which is not generally found to be the case, and this is explained on the supposition that there is a concomitant diminution in the activity of combustion. The pulse is small; the heart sounds are very feeble. The integuments are pale or cyanotic, and covered with a cold perspiration. There is often a degree of dyspnœa not explicable by respiratory lesion. The urine is diminished, and is often albuminous. There are muscular cramps; and the patient suffers from vertigo. He holds that the condition is due to the irritation of the sympathetic centre by the nerves going from the affected part, and through the sympathetic the calibre of the arteries is diminished; that by this means there is venous engorgement and deficient oxidation in the lungs, etc. He believes the condition is not to be explained by a general affection of the circulation, but is due to local disturbances in the circulation and the *calorification:* and this, he thinks, is proved by the symptoms of the collapse being limited to certain parts, particularly the face and extremities.

Hyperosmic Acid in Neuralgia.

In Tübingen, as well as in Kiel, experiments have recently been made to determine the action of hyperosmic acid (*Deutsch Med. Zeit.*, July 7, 1884). This drug was first recommended in malignant tumors, into whose parenchyma the acid was injected. In both localities the result has been nihil, the inflammation ensuing exerting no influence on the malignant character of the new growth. As well known, Dr. Winiwarter was the first to bring the remedy to the notice of the profession.

Dr. Neuber, in Kiel, accidentally employed the hyperosmic acid in several cases of peripheral neuralgia, which had not yielded to other drugs. He reports three cases where a daily subcutaneous injection of the acid was employed. He made use of a one per cent. watery solution, of which from four to six drops sufficed for each injection. Selecting the locality most affected by the pain for the hypodermic application of hyperosmic acid he found that in each of the three cases of neuralgia, though they were of stubborn character and had thus far withstood every possible treatment, the effect of the acid was magical, the pain after a few applications ceasing, and in no instance returning. The injections themselves were

neither very painful, nor followed by suppuration, nor accompanied by poisonous side effects.

There are many cases of superficial neuralgia which apparently are incurable until some new remedy is tried, to which they at once yield. The more physicians report such cases, the sooner will the conditions be determined, under which each anti-neuralgic remedy may be expected to act promptly.

Trephining on Account of Necrosis.

A boy, æt. 15, was said to have suffered in May, 1882, from typhoid fever. Soon after, a swelling was noticed in the left occipital region. July of the same year, an abscess developed itself in the same place, and was opened. December 6, the patient entered the hospital of Dr. A. Kine, in Moskow (Lyctopissj chirurg. Obschtschestwa w Moskwe, 7, '83, Russ.). K. discovered at the border between the left temporal and the occipital bone a fistula, sounding which he felt the bone denuded of its periosteum, and at the same time observed a pulsatory motion of the pus at the bottom of the fistula.

The abscess cavity was laid open, when there appeared a necrotic piece of bone of the size of a silver dollar, showing in its centre a perforated place as large as a pea, through which the dura mater could be seen, also covered by a caseous formation. K. made the diagnosis of tubercular ulceration of the occipital bone, and determined to perform trephining. The whole piece of necrotic bone was removed with the chisel, also a piece of the dura mater. Drainage was established and a Lister-bandage applied. Cure by first intention took place, except at the opening for drainage, where again a fistula formed, which did not close until September, 1883. The cicatrix consists only of dense areolar tissue, dense and strong enough, however, to serve as a bony covering. No hair has grown at the place.

The patient was presented cured to the Surgical Society of Moscow.

The Transmissibility of Bovine Tuberculosis Through Milk to Young Animals.

This subject, which has been receiving considerable attention lately, is discussed by Dr. Francis Imlach in the *British Medical Journal*, July 26, 1884, who concludes from his experiments that healthy young animals carefully selected and tended, may be safely fed with the milk of tuberculous cows without the rapid development of tuberculosis. Only in two monkeys was there evidence of tubercle, and the disease is too common amongst them in England to allow us to ascribe its development to infection by milk. Of the ultimate results of such feeding it would be unsafe to make any assertion, for extensive observations would be necessary in order to avoid numerous obvious fallacies. The investigations carried on in Berlin under the superintendence of Virchow having left this question unsettled, it would be a great boon to the medical profession if Mr. George Fleming, who has so ably and so forcibly drawn attention to it, or some other veterinary authority with facilities and skill superior to what any member of our profession can be expected to have, would subject this great problem to a practical test.

In Vienna, New York, and elsewhere, efforts have recently been made to suppress the sale of milk from tuberculous cows by legal enactment. Though the observations above recorded do not suggest that a healthy child in a comfortable home would be hurt by the occasional ingestion of such milk, it would be rash to conclude, without further observations, that tubercle might not thus be engendered in an ill-fed and ill-clad child, with an unhealthy heritage and a digestive mucous membrane eroded by frequent diarrhœa.

Hypo-nitrous Acid a Remedy in Cholera.

Dr. Roman de Luna has published the following observations (Arch. d. Pharm., June, 1884,) which he made during the epidemic of Asiatic cholera in Madrid, and last year in Manila.

The infectious element of cholera contaminates the atmosphere, and thus infects persons and inanimate objects. The infection takes place solely by the respiratory passages, and especially during the period of rest, *i. e.*, while the individuals are asleep. The microbe acts mainly on the blood corpuscles, prevents the formation of blood, and thus causes a kind of suffocation, at last ending in death. The sole remedy for cholera patients in the cold stage consists in the inspiration of air, which is cautiously mixed with the vapor of nitrous acid (subnitric acid—unter salpeter säure).

In the cases reported by L., two or three inhalations generally sufficed to produce a great amelioration of the threatening symptoms and to induce reaction, and a few hours later the patients were free from danger. As a preventive remedy, L. recommends, therefore, the fumigation of inhabited rooms twice daily, every morning and night. During the terrible epidemic of Asiatic cholera in Manila last year, of the 300 men working in the mint of Manila and exposed to the influence of nitrous acid vapors not a single one be-

came affected with cholera—a fact which, considering the spread of the disease in that locality, would, if true, be almost convincing of the preventive and curative action of nitrous acid.

Calculus in a Boy Aged Five Years.

To a recent meeting of the Medico-Chirurgical Society of Edinburgh, Prof. Chiene showed a calculus from a boy aged five years, who had been sent by Dr. Hutchinson, of Cockermouth, with the history that he had very frequently to make water during the day and night. On November 14 of last year, under chloroform, a small sound was with difficulty passed into the bladder. A grating sensation was felt as it passed through the membranous urethra. No stone could be detected in the bladder; but by the rectum a stone was felt lying in the membranous urethra. A staff was then passed as far as the calculus, an incision was made in the raphe of the perineum, and the membranous urethra opened into. An attempt was then made, with the finger in the rectum, to push the stone out of the wound, but it now slipped back into the bladder. An incision was then made through the prostate, and the stone was removed. The thicker end of the stone was in the bladder, the other end forming a mould of the membranous portion of the urethra.

Fœtal Movements in the Diagnosis of Pregnancy.

Dr. Theophilus Parvin (*College and Clinical Record*, August 1, 1884,) says that they must be movements which you see or feel, not that you are told of, in order to have any value. Now it is generally easy if these movements do not occur spontaneously in the course of your examination by palpation and auscultation, to cause them. The fœtal ovoid is adapted, accommodated, to the uterine ovoidal cavity. Change the shape of that cavity by pressing the hand firmly upon the uterus, so that the accommodation is, for the time being, lost, and the fœtus moves for the purpose of restoring it. He thinks very probably this pressure has made the fœtus uncomfortable, and it moves to find a comfortable position. Uterine contractions may be excited by this pressure, and fœtal movements follow them. The one word which explains the position which the fœtus occupies in the womb, and the most important of the mechanical phenomena of labor, is the word *accommodation*.

"Take your Forceps with You."

Dr. H. V. Sweringen, of Fort Wayne, Ind. (who is well-known to our readers), contributes an article with this caption to the July number of the *Obstetric Gazette*, for the purpose of warning all physicians to be very particular always to carry with them to every labor case their forceps. It is well to issue such a warning occasionally, because on account of the very large proportion of cases of parturition that terminate spontaneously, the physician is very apt to leave his forceps at home, feeling that the chances are against his being obliged to use them, and if his home is far from his patient, and the demand for instrumental interference becomes very urgent, the patient may die before the forceps can be procured. Such a case has happened to Dr. S., and he concludes his article by saying, "I verily believe, that if she had been delivered *promptly*, with the forceps, immediately upon or before the appearance of her first convulsion, her life would have been saved. I close as I began, *take your forceps with you always.*"

Treatment of Nasal Polypi.

As a valuable contribution to the therapeutics of this unpleasant condition, we are glad to note that Dr. Richardson, in the *Asclepiad*, recommends the use of sodium ethylate in the treatment of nasal polypus. The caustic agent is applied by means of a probe made of soft cotton-wool, twisted into shape on the points of a pair of forceps. This cotton probe is saturated with the ethylate, and then plunged into the substance of the polypus. On removing the cotton it commonly happens that the patient can expel the whole mass of destroyed polypus, in a semi-fluid form, by blowing the nose sharply. A second application ought to be made with a view of destroying the base of the polypus. The mode of action is said to be sufficiently clear. The ethylate is decomposed by contact with the water of the polypus into caustic soda and alcohol; the latter coagulates the albuminoids, and the former acts as a powerful caustic. With the exception of some burning pain, no unpleasant effects seem to follow the use of this method.

Cold Ablutions of the Feet for Cold in the Head.

The following simple measure is highly recommended by Dr. Prokop Popoff, of Siberia, who states in the *Russkaia Meditz* that in more than 300 cases of acute and chronic rheumatic coryza he used it with great success: Twice daily (in the morning on rising, and at night on going to bed) for two days the patients are ordered to wash their legs from the sole up to the knee with ice-cold water, and to subsequently rub the washed parts with a dry towel, or a piece of rough linen

or cloth, until a vivid redness and feeling of warmth appears. The whole procedure takes not more than five minutes. No other measures or precautions are required. A striking improvement follows already on the next day; in fact, the improvement is usually so great, that many patients content themselves only with one day's treatment, regarding themselves as cured.

Bacterial Urethritis.

From the *Lancet* we note that the number of varieties of inflammation of the urethra cannot properly be regarded as less than the number of inflammations of any other mucous surface. It has long been recognized by surgeons that intense urethritis is not necessarily of gonorrhœal nature. Neisser and others have described a micrococcus as the cause of gonorrhœa. Aubert has for some time past made a systematic examination of urethral discharges, and in three instances has found, instead of gonococcus, a rod-shaped microorganism. He has traced a resemblance between these bacteria and those found in pus from ulcerative balanitis. Although Aubert is inclined to regard the presence of the bacilli as indicating a different variety of urethritis, he wisely abstains from giving his positive adhesion to this view.

Injury of the Head, followed by Temporary Blindness and Anosmia.

Before the Ophthalmological Society of Great Britain (July 4, 1884), Mr. Spencer Watson reported the case of a man who threw himself out of a window a height of forty feet from the ground, and was taken up in an unconscious state. He regained partial consciousness, and then became violently delirious. After the swelling of the eyelids had passed off, he was found to be absolutely blind, and ophthalmoscopic examination revealed engorged optic discs. Loss of smell was also noticed at this time. In a few days the sight improved, and at the end of six weeks was quite restored. The anosmia, however, remained. The probable cause of these losses of sensory activity was a hemorrhage in the middle and anterior fossæ.

Pathology of Miliary Tuberculosis.

Careful observations have proven that the introduction of any poisonous material in the blood, and acting as a foreign body in the tissues, (as mercury, etc.), is always deposited in the parenchyma of organs, in the form of tubercles, being small emboli. Dr. C. Benda, at the last meeting of the Berlin Physiological Institute, demonstrated that tubercle-bacilli, if forced into the circulation of animals, was carried along until they reached the capillary vessels in the tissues, where they were deposited like emboli. We have thus an explanation why in miliary tuberculosis so many different foci are found in various organs. The further our investigations progress, the more certain appear the microzymes as pathogenic elements of infectious diseases.

Pruritus Vaginæ.

Dr. Hach stated at the Riga Medical Society (*St. Petersburger Medicinische Wochenschrift*, March 22), that, in a very obstinate case, in which various external and internal means had been employed in vain, he had met with complete success from dusting the mucous membrane of the vagina with iodoform. Beyond slight redness of the vagina, no diseased appearances were observable. Dr. Rulle stated that he had often employed iodoform balls in this affection, but had derived better results from the watery extract of opium, and small injections of cold water. He believed that this pruritus often arose from a slight dilatation of the rectum, just above the sphincter ani, which gave rise to detention of fæces there.

CORRESPONDENCE.

A Case of Alopecia Areata.

EDS. MED. AND SURGICAL REPORTER:

There has lately come under my notice a rather severe case of this rare disease; and inasmuch as it may present some features that will bear on the etiology of this affection, I thought it would be well to report it.

A man, aged about 40, of full, plethoric habit, while talking to me one day, removed his hat, and said, "Doctor, what do you call that?" His scalp was perfectly destitute of hair in any shape or form. Upon further observation, I found that the *whole body*, including eyebrows, eyelids, face, axillæ, and pubes, was in the same condition. He remarked: "One year ago the first of last May, I was as hairy a man as you would see anywhere, with a full beard that reached to my waist." If there is a single hair on his body now, I failed to find it. The history is this:

For several years he has been afflicted with supra-orbital and occipital neuralgia, as well as an occasional spell of lumbago. He absolutely denies syphilis, and I have every reason to believe that he has never had it, not being able to find any indication of it in any part of the body. His general health is good. Has never had any severe sickness; and I might say has had no sickness at all, having been strong and hearty all his life. He has never had any skin disease in his life, except scabies when a boy. The present difficulty dates from sometime in May, 1883. It commenced by the falling out of spots of hair,

first on the temples, and gradually passing around to the occipital region; then commencing on the brow and passing backward to complete the scalp; then the eyebrows and eyelashes, the whiskers, and finally that on the rest of the body.

This all occurred inside of three months. After the hair had fallen out, lanugines appeared, but also dropped out quickly. He has been treated by many of the best-read physicians of this vicinity, mostly upon the anti-parasitic plan, but all treatment has absolutely failed.

The conclusions I draw from this case, and the result of treatment, are:

1. The possibility of its origin being a nerve disturbance, causing impaired nutrition; and,
2. That it is not parasitic.

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NEWS AND MISCELLANY.

Incidents in the Life of a Great Man.

As serving to set a good example for us all to follow, from the *Scientific American* we note that in a memorial sketch contributed to the New York *Medical Journal* by Dr. W. Gill Wylie, on the life and works of the late Doctor J. Marion Sims, many interesting facts and incidents in his life are given. We omit what the writer says of Doctor Sims' professional work, and confine our extracts to the biographer's testimonial of his deceased friend's personal habits and methods, which carry with them a good example for others to follow:

"He was truly master of himself. Vices he had none, not even of the smallest kind. The animal in him was completely under control. His habits and his appetites were always guided by his reason. I have known him, day after day, and month after month, rise at seven, take a simple breakfast, consisting of a glass of milk and Southern hominy, bread and butter, and sometimes an egg. At eight enter his carriage, and make a few morning calls on severe cases. At nine return to his office and see patients till one or one thirty, take a simple lunch of steak, potatoes, etc. At two enter his carriage, visit patients, operate, etc., returning home usually about five or six, write letters, and at seven take a plain dinner of one kind of meat and vegetables. He never took wine, nor coffee, nor tea, nor condiments of any kind. At the table he was usually talkative and playful, talking about the topics of the day, the theatre, of which he was very fond, etc. After dinner he usually wrote letters and did light work, reading journals, etc., or passed his time with his family or friends in the drawing-room. About nine thirty he would usually go to his bedroom, where he read or wrote, sometimes lying in bed until midnight, when he would retire for the night. It was always marvelous to see him so continuously and persistently intent upon his work. He had a habit of writing down ideas at night, by means of a pamphlet, the edge being placed on paper so as to guide his pencil without a light.

"When one was familiar with his capacity for endurance, his power for concentration, his unbounded enthusiasm, his deliberate, persistent, painstaking work, backed up by his unselfishness and undaunted moral courage, it was not surprising to witness his success. His motto as a boy was: 'Duty before pleasure.' Later in life, he needed no motto; it had become a habit for him to do what he thought was right. Difficulties, obstacles, and troubles were as nothing to him when once he had made up his mind to act. He went directly at a thing, and he kept at it until it was mastered. It was this great painstaking and persistent work that made things so clear and so definite to him, and enabled him to express his ideas so lucidly. It was also this power that developed his self-reliance and his moral courage, and made his instruments and his methods of operating so near perfect, that those who claim to improve or to modify them, are merely working backward over the same ground that Marion Sims traveled over in perfecting them. His was the inductive method, or working and perfecting method—a developing method. He cleared away complications, and gradually simplified ideas and instruments, till they approximated the truth and the best.

"He was no idle dreamer; he never wandered into intangible mysticism; there was neither confusion about his work, nor indefiniteness about his aims.

"His mind was always aggressive, progressive, receptive, and ingenious. He was a leader—*a practical genius.*"

The Lithophone.

Mr. James M'Kenzie Davidson, with the assistance of Professor Alex. Ogston, of Aberdeen, has invented and described in the *Lancet* a new instrument which is termed a "lithophone," and is to enable surgeons to hear a stone in the bladder. The instrument is a common sound so arranged at the handle as to admit one end of an elastic tube, the other end of which is inserted into the operator's ear. Prof. Ogston and Mr. Davidson have employed their "lithophone" in clinical teaching, and found it very useful. But we think (says the *Edinburgh Medical Journal*), notwithstanding all they say in praise of their instrument, that the method long ago introduced and used by the late Mr. Spence, of placing a thin, round, flat board on the handle of the sound, is better. By this method the presence of a stone in the bladder can be made distinctly audible to the operator and to a number of bystanders at the same time. Prof. Ogston recommends the "lithophone" as simple and convenient. Mr. Spence's sounding board is both simpler and more convenient. Professor Ogston mentions a case in which the "lithophone" was useful in discovering a stone in the bladder. The calculus, when subsequently caught in a lithotrite, was found to be nearly half an inch in diameter. We humbly submit that such a calculus ought to have been readily felt.

The Habits of an Ovariotomist.

Dr. R. Stansbury Sutton, of Pittsburgh, Pa., who reports ten abdominal sections, with nine recoveries, in the *Obstetric Gazette*, July, 1884, concludes his article by saying: "In all my opera-

tions I have but one assistant, and permit but few spectators. I am not mixed up in general practice, neither is my present assistant, Dr. Stone. My former assistant, Dr. Rahouser, very superior in such work, has kindly stood aside on account of his general practice. Zymotic disease practice and abdominal surgery in my judgment are not compatible. My building has proved too small for abdominal and pelvic surgery. That I might indulge in cervical and perineal surgery, as well as in the less profitable abdominal work, I have erected a separate building on my lot, over one hundred feet from the present building. This new building is especially adapted for abdominal work, and will be used exclusively for this purpose."

Items.

—In the *London Med. Times*, July 26, 1884, Dr. R. Clement Lucas reports a case of peri-nephritic abscess cured by drainage.

—Upwards of one and a half million have visited the International Health Exhibition during the two months it has been open to the public.

—In the *London Med. Times*, July 26, 1884, Dr. C. J. Krickenbeck reports a case of gunshot wound of the colon and base of left lung, with recovery.

—In the *College and Clinical Record*, August 1, 1884, Dr. Lloyd Norris Horwiz reports an interesting case of carcinoma of the pancreas, with secondary involvement of the liver and stomach.

—Moreau de Tours, the celebrated French alienist, whose aphorism, "Le genie est une névrose," made the groundwork of his great work on La Psychologie Morbide, is dead at the age of eighty.

—An apparently authentic account is given of the birth of four living male children by a woman named Mrs. H. W. Pullman, who resides near Eureka, Mo. The mother had previously given birth to triplets.

—Mrs. Juggins: "I always have said it, and says it again—nobody need be ashamed of their origin." Mrs. Muggins: "Jest so, my dear; a little drop in moderation is as good as medicine, and there's nothink orrid about it."

—The Hospital of Jesus, in the city of Mexico, is said to have been founded and endowed by the conqueror Cortez. The government has recently confiscated the property, on the plea that the terms of the founder's will had not been complied with.

—The Emperor of Austria has just conferred upon Hofrath Dr. Carl Langer, Professor of Anatomy in the University of Vienna, the *Ritterkreuz* of the Order of Leopold. This high distinction, in acknowledgment of the merits of this learned savant, indefatigable teacher, and able referee of the Minister of Public Instruction, has given great satisfaction in professional circles.

—Dr. Roussell, the inventor of direct transfusion, has, we are informed from Paris, resumed his former experiments on the hypodermic injection of the salts of copper, which he regards as a prophylactic against cholera. He has also constructed a new apparatus by means of which large quantities of albuminous fluids may be applied hypodermically in the algid stage of cholera.

—On Tuesday, Dr. John S. Billings, of the army, tendered to the International Medical Congress, in session at Copenhagen, an invitation to hold its meeting of 1887 in Washington.

OBITUARY NOTICES.

JOSEPH J. WOODWARD, M. D., U. S. A.

Dr. Joseph J. Woodward, Surgeon U. S. A., died August 17th, near this city. He was born in Philadelphia about 1832, and graduated in medicine from the University of Pennsylvania in 1853. After remaining a short time in private practice in this city, he entered the army, where his valuable labors in connection with the Medical History of the War and the organization of the Army Medical Museum, together with his numerous contributions to our science and literature, have given him wide-spread reputation. Two years ago he was elected president of the American Medical Association, but owing to ill health, on account of which he went abroad, he was unable to take his seat.

DR. C. W. CHAMBERLAIN.

Dr. Charles Walter Chamberlain, Secretary of the State Board of Health of Connecticut, and a member of the National Board of Health, died in Hartford, August 21. Dr. Chamberlain was born in Providence, R. I., July 22, 1844, and was a son of the Rev. Charles Chamberlain. He was educated at Brown University and the College of Physicians and Surgeons in this city, graduating from the latter institution in 1871. He made a specialty of laryngology, and established himself in Hartford. He was Secretary of the State Medical Society in 1876, and contributed to the transactions of that year two papers upon throat diseases, and in the following year a third paper on a similar subject. In 1877, Gov. Hubbard appointed Dr. Chamberlain Examining Surgeon for the soldiers in the State Hospitals. He was also for a number of years Examining Surgeon to the United States Pension Bureau, and was well known throughout the country as a distinguished sanitarian.

QUERIES AND REPLIES.

EDS. MED. AND SURG. REP.—

Please answer the following ethical question: The family physician is out of town. Another physician is called to attend a member of the family. While in discharge of this duty, the lady of the house is about to be confined. He is requested to visit her room, remains with her a couple of hours, when the family physician returns. Now, whose patient is it? Should not the physician called surrender the case? What fee is he entitled to? Was he right in remaining through the confinement, then letting the family physician give her subsequent attention, and charging full fee, while the family physician received nothing? I have consulted several of our oldest physicians, and they think he acted wrongly. E. W. C.

Maryland, August 20, 1884.

Ans.—We agree with the opinion of your oldest physicians. EDS. MED. AND SURG. REPORTER.

P. W. V. desires to know which of the sulphur springs is best for a dyspeptic who is troubled with flatulency, constipation, and piles. The White Sulphur in Virginia has been tried, but found to contain too much *gas*.